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PAPER TRADE JOURNAL

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

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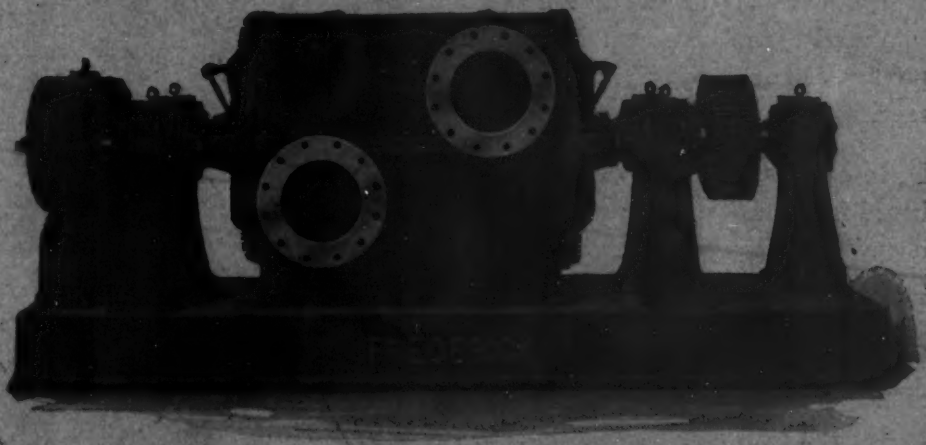

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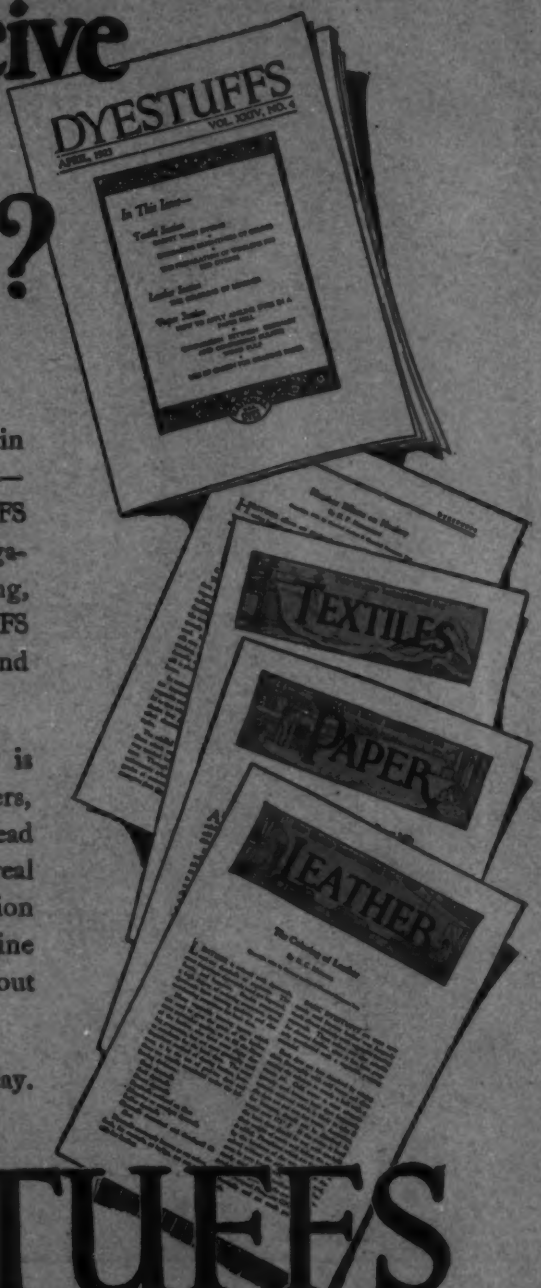

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FIFTY-SECOND YEAR
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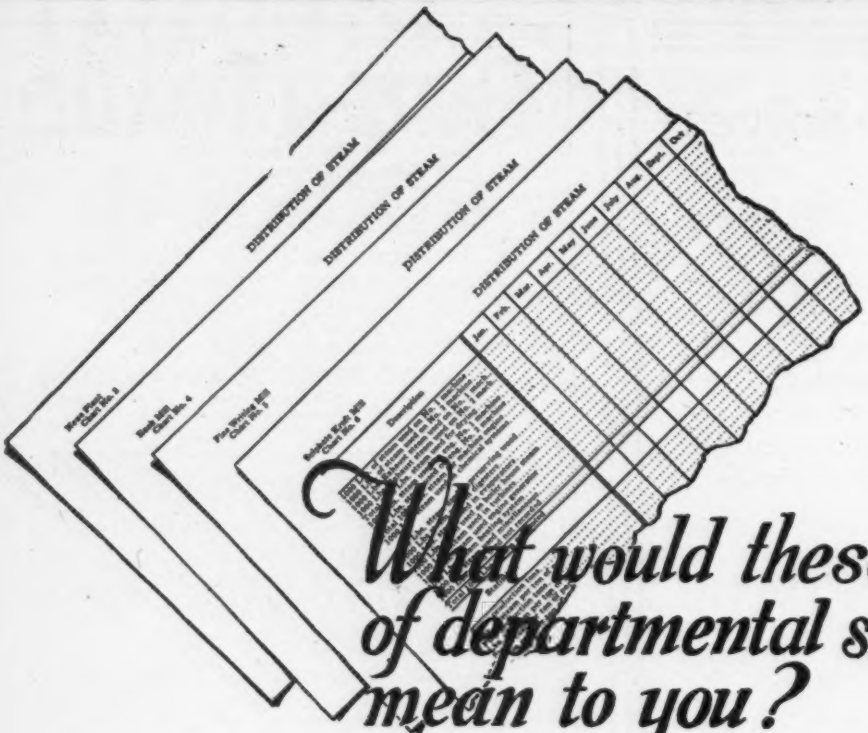

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PAPER TRADE JOURNAL

Vol. LXXVII. No. 2 NEW YORK AND CHICAGO Thursday, July 12, 1923

ORGANIZE TO FIGHT PULPWOOD EMBARGO

Representative Paper Men From All Over the Country Organize as the Committee on Perpetuation of the Paper Industry of the United States to Meet Problems Raised by the Threatened Embargo on Pulpwood Exports From Canada to the United States—Send Protest to Secretary Hughes—Grave Results From Measure Seen

At a meeting of leading paper manufacturers of the United States at the Union League Club to-day, a national committee, to be known as the Committee for the Perpetuation of the Paper Industry in the United States was formed to meet problems raised by the threatened embargo on pulpwood exports from Canada to the United States.

The committee includes representatives of all the important paper making group and also manufacturers from all parts of the United States, including the Pacific Coast and the South, as well as the great paper making sections of the eastern and the lake states.

Henry W. Stokes Made Chairman

Henry W. Stokes of Philadelphia of the York Haven Paper Company, was made chairman, and A. G. Paine, Jr., of New York, of the New York and Pennsylvania Paper Company was made vice-chairman. Dr. Hugh P. Baker, executive secretary of the American Paper and Pulp Association, of which Mr. Stokes is president, was made secretary. The new committee, however, is not confined to members of the American Paper and Pulp Association, but will include all the organized groups of the industry, as well as a number of big companies which are not included in any of the existing associations. The membership of the committee, most of whom have already accepted membership, and pledged themselves to work actively in the new organization, comprising more than half of the total rated capacity of the industry in the United States, is as follows:

News Print

Col. W. E. Haskell, International Paper Company, New York, N. Y.; George Ostrander, Finch, Pruyn & Co., Glens Falls, N. Y.; George McKee, Algonquin Paper Company, Ogdensburg, N. Y.; Garrett Schenck, Great Northern Paper Company, New York, N. Y.; Arthur C. Hastings, Cliff Paper Company, New York, N. Y.; Harry P. Gould, Gould Paper Company, Lyons Falls, N. Y.; George H. Mead, Mead Pulp and Paper Company, Dayton, Ohio; Louis Bloch, Crown Willamette Paper Company, San Francisco, Cal.; Edgar Rickard, Pejepscot Paper Company, Brunswick, Maine; Chas. K. Blandin, Itasca Paper Company, Grand Rapids, Minn.; E. W. Backus, Minnesota & Ontario Paper Company, International Falls, Minn.

Wrapping Paper

Henry W. Stokes, York Haven Paper Company, Philadelphia, Pa.; Geo. W. Sisson, Jr., Racquette River Paper Company, Potsdam, N. Y.; Herman Elsas, Continental Paper & Bag Mills, New York, N. Y.; W. R. Brown, Brown Corporation, Berlin, N. H.; Waldo E. Pratt, Hollingsworth & Whitney, Boston, Mass.; Stanley C. Bayless, Bayless Manufacturing Corporation, Austin, Pa.; James W. Oakford, Cherry River Paper Company, Philadelphia, Pa.; Rudolph Pagenstecher, General Paper Company, Muskegon, Mich.; L. M. Alexander, Nekoosa-Edwards Paper Company, Port Edwards, Wis.; D. C. Everest, Marathon Paper Mills Company, Rothschild, Wis.; O. Bache-Wiig, Wausau Sulphur Fibre Company, Mosinee, Wis.; W. L. Edmonds, Wassau Paper Mills Company, Brokaw, Wis.; Milton E. Marcuse, Bedford Pulp and Paper Company, Richmond, Va.; H. W. Ellerson, Chesapeake Corporation, West Point, Va.; A. C. Goodyear, Bogalusa Paper Company, Bogalusa, La.

Paper Board

George Gair, Robert Gair Company, New York, N. Y.; Ed. Gardner, Gardner-Harvey Company, Middletown, Ohio; Geo. Seaman, Eddy Paper Corporation, Three Rivers, Mich.

Book Paper

A. G. Paine, Jr., New York & Pennsylvania Company, New York, N. Y.; David Luke, West Virginia Pulp and Paper Company, New York, N. Y.; Hugh J. Chisholm, Oxford Paper Company, New York, N. Y.; Frank J. Sensenbrenner, Kimberly-Clark Company, Neenah, Wis.; Grellet Collins, Dill & Collins Company, Philadelphia, Pa.; Eugene W. Fry, Jessup & Moore Paper Company, Philadelphia, Pa.; Felix Pagenstecher, Bryant Paper Company, Kalamazoo, Mich.; A. G. Gilman, Allied Paper Mills, Kalamazoo, Mich.; W. W. Sunderland, Miami Paper Company, West Carrollton, Ohio; Robert Houk, Sr., G. H. Mead Company, Dayton, Ohio; A. H. B. Jordan, Everett Pulp and Paper Company, Everett, Wash.; Martin Cantine, The Martin Cantine Company, Saugerties, N. Y.; Walter D. Randall, Champion Coated Paper Company, Hamilton, Ohio; G. F. Russell, Champion-International Company, Lawrence, Mass.

Pulp

J. P. Hummel, Hummel-Ross Fibre Corporation, Hopewell, Va.; G. P. Berkey, Consolidated Water Power and Paper Company, Wisconsin Rapids, Wis.; E. W. Kiefer, Port Huron Sulphite Pulp and Paper Company, Port Huron, Mich.; Geo. E. Crafts, Orono Pulp and Paper Company, Bangor, Me.

Fine and Tissue Paper

Walter J. Raybold, B. D. Rising Paper, Housatonic, Me.; Norman W. Wilson, Hammermill Paper Company, Erie, Pa.; S. L. Willson, American Writing Paper Company, Holyoke, Mass.; C. A. Crocker, Crocker-McElwain Company, Holyoke, Mass.; Fred Leahy, Eastern Manufacturing Company, New York, N. Y.; A. D. Coffin, C. H. Dexter & Sons, Windsor Locks, Conn.; Frank E. Taylor, Advertisers Paper Mills, Holyoke, Mass.; F. L. Stevens, Stevens & Thompson Paper Company, North Hoosick, N. Y.; L. C. Anderson, W. B. Oglesby Paper Company, Middletown, Ohio; A. H. Dwight, Hawthorne Paper Company, Kalamazoo, Mich.; H. A. Moses, Strathmore Paper Company, Mittineague, Mass.; Winthrop M. Crane, Jr., Crane & Co., Dalton, Mass.

Paper Converters

Wm. F. Brunner, Paterson Parchment Paper Company, Passaic, N. J.; Philip R. Allen, Bird & Son, East Walpole, Mass.; E. H.

Burton, A. P. W. Paper Company, Albany, N. Y.; J. Kindleberger, Kalamazoo Vegetable Parchment Company, Kalamazoo, Mich.

Executive Committee

In order that the committee's work may be expedited without frequent meetings of this comprehensive committee, a limited executive committee, largely made up of members in or near New York so that they may be able to meet frequently was selected and instructed to begin at once to plan the future activities of the general committee, assisted by numerous sub-committees. This executive committee is made up as follows:

Chairman—Henry W. Stokes, York Haven Paper Company, Philadelphia, Pa.; Vice Chairman, A. G. Paine, Jr., New York & Pennsylvania Company, New York, N. Y.; Col. W. E. Haskell, International Paper Company, New York, N. Y.; S. L. Willson, American Writing Paper Company, Holyoke, Mass.; Frank L. Stevens, Stevens & Thompson Paper Company, North Hoosick, N. Y.; Felix Pagenstecher, Bryant Paper Company, Kalamazoo, Mich.; George H. Mead, Mead Pulp and Paper Company, Dayton, Ohio; Frank J. Sensenbrenner, Kimberly-Clark Company, Neenah, Wis.; Hugh J. Chisholm, Oxford Paper Company, New York, N. Y.; Norman W. Wilson, Hammermill Paper Company, Erie, Pa.; David L. Luke, West Virginia Pulp and Paper Company, New York, N. Y.; Milton E. Marcuse, Bedford Pulp and Paper Company, Richmond, Va.; Arthur C. Hastings, Cliff Paper Company, New York, N. Y.; Hugh P. Baker, Secretary, American Paper and Pulp Association, New York, N. Y.

Paper and Printing Industries Concerned

"The proposed embargo, if made effective involves the entire paper and printing industry in the United States," said Mr. Stokes. "The price of pulpwood would at once begin a rise toward war time levels, and more than a million cords of wood a year would be added to the drain on our own fast diminishing pulpwood resources. The paper and printing industries, every branch of which would be affected, have a total product valued at three billion dollars a year, employing more than half a million wage earners."

During the past week the American Paper and Pulp Association has also sent a protest to the Department of State asking Secretary Hughes to act against the Canadian legislation, which, if put into effect, may force the manufacturers of news print out of this country and into Canada.

P. T. Dodge on Situation

Philip T. Dodge, president of the International Paper Company, in discussing the proposed embargo said that he had no doubt that the price of news print would be increased as a result of it. His own company will not suffer so much as some of the smaller ones because it has large holdings of timber in the United States.

"If we are not allowed to do business profitably we will turn to other grades of paper which can be produced at a profit, and we shall sell current from our water power developments," said Mr. Dodge. "No doubt other companies will be forced to do the same. The Canadian legislation is a blow at the American paper manufacturer."

Mr. Dodge said that the proportion of paper other than news print made by the International is steadily increasing. The mill at Niagara Falls has been converted to the manufacture of sulphite bond, book and other high-grade papers. Another mill at Wilder, Vt., has also been shifted to the manufacture of special high-grade papers. Both of these plants have been operating on a profitable basis. News print production in 1922 was only 62 per cent of the company's output.

The International holds about 2,000 square miles of woodland in Maine, New Hampshire, Vermont and New York, but has between 5,000 and 6,000 square miles in Canada. Mr. Dodge explained that many of the American manufacturers had no woodlands in the United States and the consequence of the embargo would be much harder upon them than upon the International.

It was declared that book and magazine publishers of this country, as well as newspapers, would likewise suffer, as the pulp wood shortage would strike the entire paper industry.

American manufacturers fear their ultimate elimination as competitors in the news print market if the embargo becomes effective. The Canadian news print mills, they say, will be assured of immense supplies of pulp wood and will be able to monopolize the United States market at their own prices.

Protest from American Manufacturers

The whole attitude of the domestic manufacturers is summed up in the following letter which the American Paper and Pulp Association has sent to the Secretary of State in Washington:

"Hon. Charles Evans Hughes:

"Secretary of State,

"Washington, D. C.

"Sir:—On Monday, the 25th instant, a Resolution was passed by the House of Commons at Ottawa, authorizing the Dominion Government to make regulations prohibiting the exportation of freehold pulp wood, which is the raw material used by the paper mills of the United States.

"This is the legislative culmination of an inspired movement which started in Canada about four years ago, as a threat to the paper manufacturers of the United States, who, by means of the Underwood Resolution, so-called, were seeking a restoration of their rights in certain Crown Land leases, which were arbitrarily, and we think, illegally taken from them by the Province of Ontario in 1900, by the Province of Quebec in 1910 and by the Province of New Brunswick in 1912.

"This high-handed annulment of the rights of American paper manufacturers to the pulp wood reserves they had acquired and paid for in the Crown Lands of the Provinces aforesaid, brought the growth of the newsprint industry of the United States to a virtual standstill in 1910, and, together with the removal of all tariff protection to the United States product by the Reciprocity Act of 1911, and the Underwood Tariff Law of 1913, stimulated the Canadian paper industry into abnormal activity.

"In 1910, the United States supplied practically the entire demand of the newspaper publishers of the United States, Canada supplying but 25,000 tons; in 1922, Canada exported to the United States nearly 1,000,000 tons, or about one-half of the consumption, nearly 90 per cent of the product of the Dominion finding its market in this country.

"Since 1910, the paper manufacturers of the United States, who use roughly 6,000,000 cords of pulp wood a year, deprived as they were of their rights of property in Crown Land pulp wood, conveyed by their original leases, have depended for an auxiliary supply of raw material on the pulp wood from Canadian freehold lands, such as agricultural lots and the old seigneuries which were exempt from Provincial laws and orders-in-council. For a dozen years, the United States manufacturers have imported this freehold pulp wood to the extent of a million cords a year, or more, and this quantity purchased or operated at usually a reasonable cost, has served to regulate the entire pulp wood market of the country.

"Now, the same interests, composed of large timberland owners, affiliated banking concerns and politicians, who secred the virtual confiscation of the large investments of United States manufacturers in Crown Land limits, emboldened, doubtless, by the failure of this Government to act under the provisions of the Underwood Resolution, after that measure, vigorously supported by all the newspapers, magazines and periodicals in the United States through their respective associations, had passed both Houses of Congress unanimously and had been signed by the President, through persistent propaganda throughout Canada, have gained a weapon with which they can strike a second and more vital blow at the whole paper industry of the United States.

"The Canadian paper industry finds its most willing and able coadjutor in its own Government.

"It is impossible too strongly to emphasize the disastrous results to the paper industry of the United States, to the publishing interests of the country and to the general reading public, that would follow the exercise of the power granted to the Government of the Dominion of Canada by the House of Commons to make regulations prohibiting the exportation of pulpwood from freehold lands in Canada.

"The price of pulp wood would at once begin a rise toward wartime levels.

"More than a million cords a year would be added to the annual drain on our own fast diminishing resources.

"The increased cost of pulpwood would find instant reflection in a large increase in the price of paper. Estimating conservatively, newsprint paper would have to be sold for $10 a ton more than the present price, thus placing an added charge of $25,000,000 a year on the publishers of the United States, and this estimate is for news print paper alone and does not cover the tremendous increase in the cost of magazine and book papers, the manufacture of which requires a larger proportion of pulpwood.

"The higher price for paper would, of necessity, force the perpetuation of the present high retail prices of newspapers, magazines and periodicals, and in time would raise the prices still higher, and the ultimate consumer, the general public, would pay the tax.

"Many paper mills along our northern borders, now dependent almost exclusively on freehold pulpwood from Canada, would be forced to shut down and scrap their equipment, and thousands of employees thrown out of work.

"As President of the American Paper and Pulp Association, and on behalf of all the paper and pulp manufacturers of the United States, as well as the converters and manufacturers of the products of the paper mills, a grand total of 36,403 plants, 509,875 wage earners, a total capital of two and one-half billions, with annual wages aggregating $565,000,000, and with a total product exceeding a value of $3,000,000,000, I send this memorandum and appeal for sympathetic and just co-operation, to you as the head of the Department of State, the only Department of our Government constitutionally empowered to call the attention of another and friendly Government to an act of gross injustice.

"I further beg to ask if it would be in order and in conformity with diplomatic usage for the Department of State to address a note to the Government of the Dominion of Canada, before it is committed to a course from which it would be difficult to recede, stating that in view of the fact that the paper indusry of Canada draws freely and without hindrance from the United States, its necessary coal, oil, sulphur and many other supplies, the exercise of the power granted by the House of Commons that would so disastrously affect a great industry of the United States, could not be regarded as a friendly act, or one conducive to the comity between nations.

"All of which is respectfully submitted,

(Signed) HENRY W. STOKES, President."

Protest from Publishers

Shortly afterward the National Publishers' Association, representing the largest magazine publishers in the United States, sent Secretary Hughes the following endorsement of the stand taken by the paper manufacturers in the communication from the American Paper and Pulp Association:

"Hon. Charles Evans Hughes,

"Secretary of State,

"Washington, D. C.,

"Sir:—We, the undersigned officers and directors of the National Publishers' Association, desire to endorse the protest entered by the American Paper and Pulp Association against the Resolution passed by the House of Commons at Ottawa on June 25, authorizing the Dominion Government to make regulations prohibiting the exportation of freehold pulpwood.

"Representing over 200 magazines in the agricultural, religious and popular fields, consuming over 600,000 tons of book and magazine paper, and publishing 700,000,000 magazines annually, we feel that the magazine publishing industry of this country would suffer materially by the natural increase in the cost of our paper if such restrictions were levied on this most essential raw material used by the paper mills of the United States.

"As President of the National Publishers' Association, and with the accord of the Directors, whose signatures as publishers are affixed hereto in behalf of the entire magazine publishing industry, I respectfully beseech the immediate attention and action of your good offices in calling the attention of the Dominion Government to this act of gross injustice and undoubted injury should this Resolution be enacted.

"Respectfully submitted,

(Signed) H. M. SWETLAND, President."

Looks on Embargo Move as a Club

[FROM OUR REGULAR CORRESPONDENT.]

WATERTOWN, N. Y., July 9, 1923.—The proposed export duty on pulpwood shipments from Canada into the United States is regarded with grave concern by paper manufacturers in this section, according to an expression on the subject by Mark S. Wilder, president of the Diana Paper Company. However, he says that he believes the "orders in council" will not be issued unless this country passes laws detrimental to the interests of Canada.

"The paper manufacturers of this section, of Maine and of Michigan and Wisconsin, could not survive such an export duty on Canadian pulp wood as that suggested," said Mr. Wilder. "Unless this government retaliated by a duty on paper imports from Canada we could not compete. The mills in the Far West obtain pulpwood even cheaper than do the Canadian mills, but the freight charges keep their paper out of the Eastern market. It would not require a very great advance in the cost of wood here to offset the shipping cost and give our market to the Western mills.

"I believe the Canadians are simply using this move as a club to keep this country from placing an export duty on coal and an import duty on paper. They must have our paper market or they cannot exist. On the other hand it is doubtful if Congress would pass a retaliatory measure in event Canada places the higher duty on pulpwood. The West and the South are not interested in the prosperity of the paper industry in this section. These things admittedly cause local paper manufacturers to regard with anxiety the pending situation."

Gifts in Memory of Late Fred G. Crane

[FROM OUR REGULAR CORRESPONDENT.]

DALTON, Mass., July 9, 1923.—Gifts were announced last week amounting to $150,000 by Mrs. Fred G. Crane, Fred G. Crane Jr., and Miss Rosemary Crane in memory of Mr. Crane, Sr., who died last January. Mr Crane who was the head of the Crane interests in Dalton following the death of his cousin, former Senator W. Murray Crane, left no will but did have certain wishes that the family are now carrying out.

The Massachusetts Agricultural College, Phillips Andover Academy, and the House of Mercy Hospital at Pittsfield receive gifts of $25,000 each. Other public gifts follow:

To Dalton Congregational Church and Y. M. C. A., each $10,000; to Berkshire School for Crippled Children and town of Dalton as a special school fund, and Berkshire County Home for Aged Women, each $5,000; to Pittsfield Antituberculosis Society and Dalton Visiting Nurse Association, each $2,500; to Simmons College in Boston, to Peru Congregational Church and to Intermountain Institute, Weiser, Idaho, each $1,000; to Associated Charities of Pittsfield, $500.

PHILADELPHIA TRADE SHOWS EARLY JULY IMPROVEMENT

Trade Optimistic As It Notes Quick Recovery From Premature Falling Off in Late June—Roller Paper Company Leases New Quarters—Paper Box Manufacturers to Convene July 17—Philadelphia Typothetæ Renews Waste Contract with E. D. Hemingway Co.—Garrett-Buchanan Co. Buys Salvaged Stock—Penn Paper & Stock Co. Loses Suit Against U. S. Railway Administration.

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., July 10, 1923.—The slight loss to the general jobbing trade which ensued last week, following the celebration of the Nation's birthday, was made up by increased buying the opening of the present week. Business still is seasonal in character but the improvement over late June is noticeable. Because of the phenomenally hot spell then, a sluggishness developed not ordinarily in evidence until the last week of July or the first week of August. But there seems to have resulted from that premature falling off a recovery and some of the printing trades still are quiet, the Fine Paper market showed the effect in a little freer buying. This in part may be attributed to the intensive campaign for business which some firms are conducting and on the basis of price cutting. In the paper market, values remain firm for all the standard brands but there were reported several slight reductions in lesser known books, bonds and writings, made by mills apparently desirous of filling up their order lists and which again advanced prices to former levels when production was assured. Some representatives of Fine Paper Houses, visiting the printing trade, report that these consumers more and more are suggesting that there must be a price recession, the distributors are not giving any encouragement along this line. They believe indeed that with prices holding so firmly for so long a time during the present quiet summer season, probabilities of an advance in Fall are much greater than of a recession.

Slackened Trading in Coarse Paper

The coarse paper market is by no means in as good condition as is the fine, and perhaps because of keener competition for business values are not as firmly held either. Tissues, of which there is more than an adequate supply, are weakening in quotations. Bogus prices went off about 10 per cent but screenings are firmly held despite the fact that they are not in large demand at present. They are not in large supply either, the trade being of the opinion that they are largely being used up by the mill themselves for wrapping. There is growing anxiety among the coarse paper dealers over the Kraft and news print situation in the light of the invasion of the foreign-made article. Because of the six months' lock-out abroad Sweden-made Krafts and news print is being offered in this market and for that matter all along the Atlantic Seaboard and for a hundred miles or more into the interior, at a price which brings them into severe competition with the domestic article. In this market very large amounts of news print from Sweden and Finland are being purchased at from one-quarter to three-eighths cent below the domestic.

Quietness in Stock Market

Though the market for better grades of paper stock continues very quiet, both supply and demand falling off seasonably, quotations were unchanged. For mixed and common, however, offerings made by nearby mills are considerably under even the inside quotations hitherto maintaining. However, quite a number of mills farther away are still in the market at approximately the old quotations and the trade is not disposed to make changes in them until the situation is more settled than at present.

Expansion of Roller Paper Co.

Word comes from Wilkes-Barre that the Roller Paper Company, established a year ago by Charles Roller, well known in this city through former connections with one of the leading houses, has enjoyed such rapid growth that larger quarters have become imperative. The business was established at 158 East Northampton street, but a lease has been secured on the building at 75 S. Pennsylvania avenue, in the heart of the wholesale district and which, for the past 18 years, has been a paper warehouse. The building has a frontage of 32 feet and a depth of 120 feet with three floors and a basement. The new location will be more economical than the public warehousing, the method of the past year. The company is planning more extensively to carry the lines of some of the largest mills. There is now stocked the lines of the Columbia Paper Bag Company, of Baltimore, the Bayles Mfg. Company, the Shawmut Paper Box Company, Northern Paper Mills, Peerless Mfg Company, and Andrew Brothers, Penn Yan, N. Y., and some of the products of the Union Paper Bag Company, and the Continental Paper and Bag Mills. Charles E. Roller is President and General Manager, E. J. Hildmeyer, treasurer; Joseph Cunningham, secretary. Others in the company are Patrick Duffy, David Lewis, and Anthony Zoeller.

To Attend Paper Box Convention

Many in the Philadelphia trade are arranging to attend the Convention of the Eastern Division of the National Association of Paper Box Manufacturers whose headquarters are in this city, at 112 N. Broad street. The program has been completed by National Secretary W. W. Baird. It embraces the novel feature of a meeting aboard boat on a trip up the Hudson. One of the features of instruction and entertainment will be an inspection of the plant of the West Virginia Pulp and Paper Company, at Mechanicville, N. Y. Members will assemble on the afternoon of Tuesday, July 17, in the Grand Union Hotel, Saratoga Springs, for the registration and later on will take an automobile trip to Mount McGregor and President Grant's cottage, returning in the evening to enjoy a band concert and sightseeing trip. The business sessions begin on Wednesday morning, in the Assembly Room of the Grand Union Hotel, when organization will be perfected and reports presented by Chairman Samuel P. Eby of the Central Committee, National Secretary, W. W. Baird and Chairman William K. Donaldson, of the Industrial Relations Committee. A forum discussion on Factory Sanitation will close the session. In the afternoon a novel meeting will be held aboard the Lake George steamer "Sagamore" and will consist of addresses on "The Signs of the Times and How to Read Them" by the Babson Statistical Organization, "My Experience With a Cost System," by William P. Datz, Jr., of Philadelphia and "Training to Make Quality Boxes," by George O. Slingeland of Mechanicville. The Accident and Liability Committee will present its report to Chairman W. I. Tay. In the evening an informal entertainment will be given in the Interior Court of the Grand Union Hotel. The final day of the session will open with two of the morning hours spent on an automobile trip to and an inspection of the plant of the West Virginia Pulp and Paper Company, at Mechanicville. At 11 o'clock the Convention will assemble at White Sulphur Springs to hear an informal talk by National President H. O. Alderman on "Some Association Services," an address on "The Manufacture of Paper Boxes in the United States," by Arthur J. Burch; the report of the "Membership Committee," by E. R. Linnard; report of the "Nominating Committee," and the election of a chairman, vice-chairman and an advisory board of five; selection of the next meeting place; report of Resolutions Committee and the transaction of new business. The Convention will close with a banquet in the evening.

Waste Contract to Hemingway Co.

The Typothetæ of Philadelphia has renewed its contract with slight modifications from those in existence during the past year, with the E. D. Hemingway Company, Elbow lane, for the collection of stock from the plants of members of its Waste Paper Divi-

(*Continued on page* 30)

EBG

Liquid Chlorine

Eliminating Uncertainty

The processes that enter into finished production are too complex to allow uncertainty of operation.

EBG Liquid Chlorine simplifies the important process of bleaching and this simplification automatically reduces expense—from the time the Liquid Chlorine starts to you in a 30,000 pound single unit tank car until the standard strength solution has served your purpose.

Two booklets every mill executive should read

—"Producing Bleach Liquor with Liquid Chlorine in the Pulp and Paper Mill" and "Transportation of Liquid Chlorine in 15-Ton Tank Cars."

Gladly sent on request.

Electro Bleaching Gas Co.

PIONEER MANUFACTURERS of LIQUID CHLORINE

Plant: NIAGARA FALLS, N.Y.

Main Office: **18 East 41st Street, New York, N. Y.**

Chicago Office: **105 W. Monroe Street**

PHILADELPHIA SHOWS EARLY JULY IMPROVEMENT

(*Continued from page 28*)

sion. Through this collective disposition of waste paper, an aggregate of about 60 tons per month, now, is being handled. The Typothetæ attributes the large increase in paper stock quotations from June of last year, when this service was organized, to the activities of the Division. The new contract was made without the opening of competitive bids, the services of the Hemingway Company being characterized as entirely satisfactory.

Disposition of Salvaged Stock

For many weeks, ever since the salvaging of the fire damaged stock of the Garrett-Buchanan Company by the insurance company involved, the distributing trade has been interested, even concerned over its eventual disposition. What remained of a stock which at inventory price ran over $350,000, was carried by the salvaging organization allied with the insurance companies to the Swanson Stores in the Southern section of the city for whatever reclamation was possible. It is understood a considerable portion of this stock which consisted of the least damaged goods, was reclaimed. The trade naturally was concerned regarding the conditions under which it was to be marketed, fearing that the dumping on the market of so large an amount of paper and at low prices, would demoralize conditions. With great satisfaction, therefore, it learned by statement of Vice President Morgan H. Thomas made to President Arthur B. Sherrill of the Paper Trade Association of Philadelphia that the Garrett-Buchanan Company, itself, had purchased the stock, paying for it in cash. The company proposes to dispose of it without in any way disturbing market conditions. The goods will remain in the Swanson stores to be drawn on as required and over a period which Mr. Thomas anticipates will extend through the next twelve months or so. President John H. Sinex, of the company is leaving to spend the summer at Thomaston, Me.

Penn Paper Stock Co. Loses Case

Notification of an adverse decision by the Supreme Court of the United States has been received by William J. McGarity, proprietor of the Penn Paper and Stock Company, thus finally terminating a suit against the United States Railway Administration, pending for the last three years and involving a claim of $45,000. It was the contention of McGarity that, under custom and regulations, the railroad employees were required to furnish men to load into cars the many shipments of paper stock which the Penn Company made during the war period, but that because of the scarcity of help, the railway board, asked him to supply his own labor for the purpose and indeed refused to handle the stock unless the firm itself loaded it into the cars. This McGarity did at an expense of $45,000, covering a period of five years. The firm sought to recover indemnity from the roads and then made an unsuccessful appeal to the Commerce Commission from their refusal. No encouragement was given and so the case was taken to the Courts. Great interest is attached to the decision even beyond the ranks of the paper trade because many other claims of similar character are pending.

Beck Salesman in Auto Collision

Harry Glenn, of the sales organization of the Charles Beck Company, Sixth and Chestnut streets was seriously injured during the week in an automobile accident. He is in the Cooper Hospital, Camden, suffering from a crushed ankle and severe lacerations and contusions, but is not in a dangerous condition. Mr Glenn was returning from Atlantic City to Philadelphia. Near Hammonton he stopped to repair a puncture. As he was about to step into his car another auto, swerving suddenly to avoid collision with a third, ran him down.

Philadelphia News Items

Jack Lipsey of the Whiting Patterson Company, 314 N. 13th street, has returned after a three weeks' Western trip.

The Wilcox Walter Furlong Paper Company, 231 Chestnut street, in sending out its July price list, calls attention to the fact that though for 25 years the Martin Cantine Company, for which it is a distributor, sold high grade coated papers under various names, all have now been improved and consolidated into six standard brands. The Cantine Line formerly carried under the Wilcox Walter Furlong company's own name will now be listed under the mill brands of Canfold, (Durable Folding); Ashokan, (Radiant); Niagara, (Wayne); Esopus, (Merion); Litho and Velvetone, (Semi-Dull). President Wilcox was recently the guest of Arthur H. Nevius, former Philadelphian and now connected with the Miami Paper company, West Carrollton, Ohio.

John K. Mohr, after a year's absence abroad, has returned to his old position as manager of sales of the Reading Paper Mills company, with offices in the Merchants and Mariners Building, 3d and Chestnut streets. Harold Walker, formerly with the Augustine Mills of the Jessup and Moore company has become assistant superintendent of the Reading Paper Mills company. A plan of consolidating the firm's Reading and Packerack Mill is now under consideration. Probabilities are that they will be combined at the present location of the Packerack Mills, near Reading, Pa.

A supply business for the paper box trade is being developed by the Saxe Paper company, 320 Race street, Proprietor Nathaniel Saxe having already added several lines of cloud effect cover papers under his own special brand of Sapaco. It is planned to add two men to the sales force who will look after the box trade. Mr. Saxe, accompanied by his family, will spend the summer in the Adirondacks.

President Allen E. Whiting, of the Whiting Patterson company, 314 N. 13th street, sailed during the week for Europe. Mrs. Whiting and their family preceded him there by several weeks. They will return at the close of August.

Holyoke Averts Strike Danger

HOLYOKE, Mass., July 9, 1923.—The threatened strike of the employees of the paper mills of Holyoke and vicinity has failed to materialize and indications are that the unions will not at present press their demands for a 10 per cent increase, no Saturday night or Sunday morning work and guarantee of a fixed amount of work each week throughout the year.

All the unions, except two or three, held off to get the report of Eagle Lodge. Eagle Lodge failed by eight votes to obtain the necessary two-thirds majority to authorize a strike vote, according to their own officials.

The unions of the finishers, ragroom and magazine workers, steam engineers and cutter girls stood with Eagle lodge on the matter of a strike. The loftmen, millwrights and stationary firemen favored a strike. This created a little complexity in the situation; so that, at the meeting of the Allied Paper Trades Council, it was voted to return the strike vote matter back to the various unions. The loftmen were most bitter in the matter, holding that their wages had been reduced and never restored and that they did not stand in the same light as the others.

President S. L. Willson of the American Writing Paper Company said that everybody appeared happy and satisfied with the result. He thought that the strike at this time would have been a bad thing for all and hinted that this method left the way open for later negotiations when conditions were more favorable.

Chas. A. Esty Paper Co. Moves Boston Office

WORCESTER, Mass., July 9, 1923.—The Charles A. Esty Paper Company of Worcester and Boston announce that its Boston office under the direction of Mr. E. D. Bement is now situated at 136 Federal street, Boston, Mass., Telephone, Congress 2602.

BIRD SCREENS

The working qualities of a BIRD SCREEN were recently summed up by a paper mill superintendent as follows:

"The greatest advantage we find is the elimination of lumps and the necessity of washing up our machine. I personally figure that we save in production at least five tons a week on a 110 inch machine, because we do not have to shut down and wash-up. Also, a great many of our breaks have been eliminated which were caused by lumps from the screen. There is very little expense in keeping up your screen. . . ."

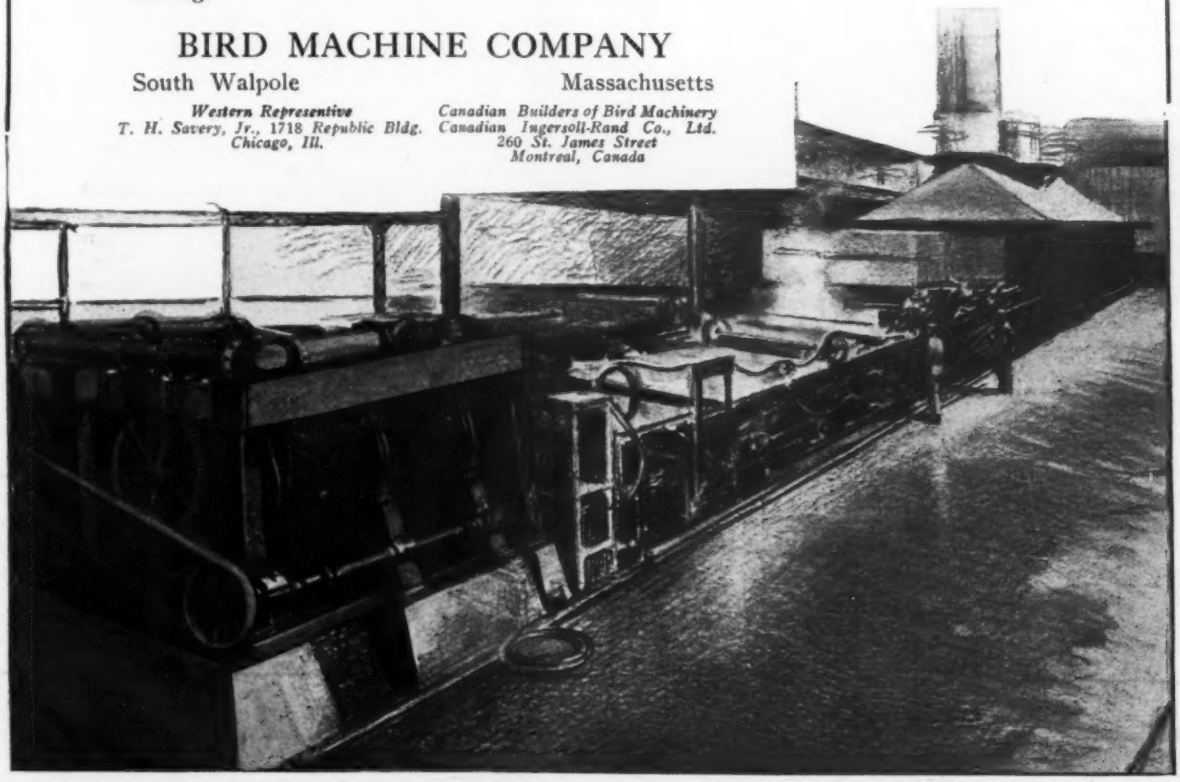
We shall be glad to send you a BIRD SCREEN catalog.

BIRD MACHINE COMPANY

South Walpole Massachusetts

Western Representive
T. H. Savery, Jr., 1718 Republic Bldg. Chicago, Ill.

Canadian Builders of Bird Machinery
Canadian Ingersoll-Rand Co., Ltd. 260 St. James Street Montreal, Canada



12,000 Tons of Paper pass through Bird Screens Daily

5161

VERDICT ON COMPENSATION BY NEW BRUNSWICK COURT

Supreme Court Decision for Bathurst Company, Ltd., in Action Protesting Levies Made by Workmen's Compensation Board — Anglo-Newfoundland Development Company Acquires New Mill and Timber Areas—Quebec Forestry Department Reopens Forests as Rains Have Ended Fires —Edwards Lumber and Pulp Company, Ltd., Purchase Mills and Limits of Colonial Lumber Company.

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., July 9, 1923.—The New Brunswick Supreme Court has rendered a verdict in favor of the Bathurst Company, Ltd., of Bathurst, N. B., in the action brought against that company by the New Brunswick Workmen's Compensation Board. The case, which was regarded as of outstanding importance, involved a claim of $62,000, being two yearly levies, each of $31,000. The board had levied on the company, and the company (which controls a pulp mill, a new paper mill, three saw mills and large tracts of timber and pulp lands), refused to pay the levy. The board instituted court action against the company and the first verdict was in favor of the board. Another court tilt resulted in another verdict for the board. The company then started action against the board and also appealed from the previous verdicts to the Supreme Court of the province. The result, in view of the previous verdicts, was somewhat unexpected, particularly by the board members. The Bathurst Company fought the levies on the following grounds:

1. That the Workmen's Compensation Board of New Brunswick extended the bulk of the moneys received from levies in expenses of the board and staff rather than payment of claims for compensations.

2. That the Workmen's Compensation Board of New Brunswick was extravagant.

3. That the principle of the compensation system as adopted by the Workmen's Compensation Board of New Brunswick was unfair to employers generally as it placed the entire burden for the upkeep of the Workmen's Compensation Board on the employers, the employee contributing nothing.

4. That the Bathurst Company, Ltd., is exempt from the levies by the board because of a company system of compensation affecting all employes injured while at work for the Bathurst Company, Limited.

The verdict in favor of the Bathurst Company, Limited is likely to be appealed by the Workmen's Compensation Board of New Brunswick. In fact, according to one report, the appeal will be carried to the Privy Council, if necessary.

Big Developments in Newfoundland

The Anglo-Newfoundland Development Company, which supplies the Harmsworth publications in England with paper, has acquired the neighboring mill at Bishop's Falls, which has a yearly output of 25,000 dry tons of mechanical pulp. The timber areas belonging to the mill have also been acquired. A very large paper-making machine is to be erected at Bishop's Falls and it is officially stated that this machine is expected to be running by the autumn of 1924 producing 25,000 tons of paper a year. This added to the production at Grand Falls will give the Anglo-Newfoundland Development Company a production of 75,000 tons of paper per annum. The company has also acquired a two-thirds interest in the large new sulphite mill at Alexandria Bay, Newfoundland, 90 miles from Grand Falls. This mill is expected to produce 25,000 tons of sulphite paper per annum. The recent additions to the timber area belonging to the company bring the large area controlled to over 4,000,000 acres.

It is understood that the concession by the Newfoundland Government to Sir W. G. Armstrong, Whitworth and Co., Ltd., for the erection of large pulp and paper mills in Newfoundland will mean the employment of some 4,000 men on construction work, and the establishment of the industry will mean regular work for between 2,000 and 3,000 on lumbering and the paper mills. It is proposed to develop about 100,000 h. p. at a point near Deer Lake, and to put up pulp and paper mills turning out 400 tons of news print daily.

Forests Are Reopened

Heavy rains during the past week have extinguished the forest fires and, as the danger is considered to be over for the time being, the Forestry Department of Quebec Government has reopened the forests to sportsmen and others, who are now at liberty to enter the woods. The damage to the forests in Eastern Canada by fires during the past few weeks is estimated by Frank J. Barnjum at $100,000,000, without taking into account the enormous potential value of the young growth destroyed. This, he says, is the greatest loss ever sustained by Canada in forest fires in any year. He maintains that the Provincial Governments have made a serious mistake in allowing half rates on stumpage for fire-killed timber as he says that this creates a temptation for some of the smaller operators to allow fire to run through the areas which they intend working.

Edwards Company Purchases Mills

A despatch from Ottawa says that the Edwards Lumber and Pulp Company, Ltd., have purchased the mills and limits of the Colonial Lumber Company, at Pembroke. The Colonial Company has been operating for twenty years and at present has an annual output of from twenty to twenty-five million feet. It is planned to double the capacity of the mill and later build a pulp and paper mill.

Field-Ernst Envelope Co. Improvements

SAN FRANCISCO, Cal., July 5, 1923.—The Field-Ernst Envelope Company, 25-31 Fremont street, is making numerous changes in its plant. Conforming to its policy of installing the latest types of equipment as soon as such machines prove their value, the company has added materially to its manufacturing facilities during the past year.

In order to handle a greater volume of cutting, a new 50-inch Dexter cutter has been added to the plant. To keep pace with a growing demand for "window" envelopes, a new machine for making 6¾ commercial envelopes with clear vision glassine is now adding 50,000 envelopes to the daily factory output. This machine provides that special sizes of "windows" in special positions can be manufactured to fit individual requirements at practically no additional cost.

A new machine for making 6¾ "penny-saver" envelopes has also been installed. This machine is unique because it can be changed in a few seconds to make the regular 6¾ commercial envelopes.

Machines have been installed for making number 9 and number 10 official envelopes either in "window" style or regular style. These machines will make special "window" envelopes as well as standard sizes, with the cost practically identical.

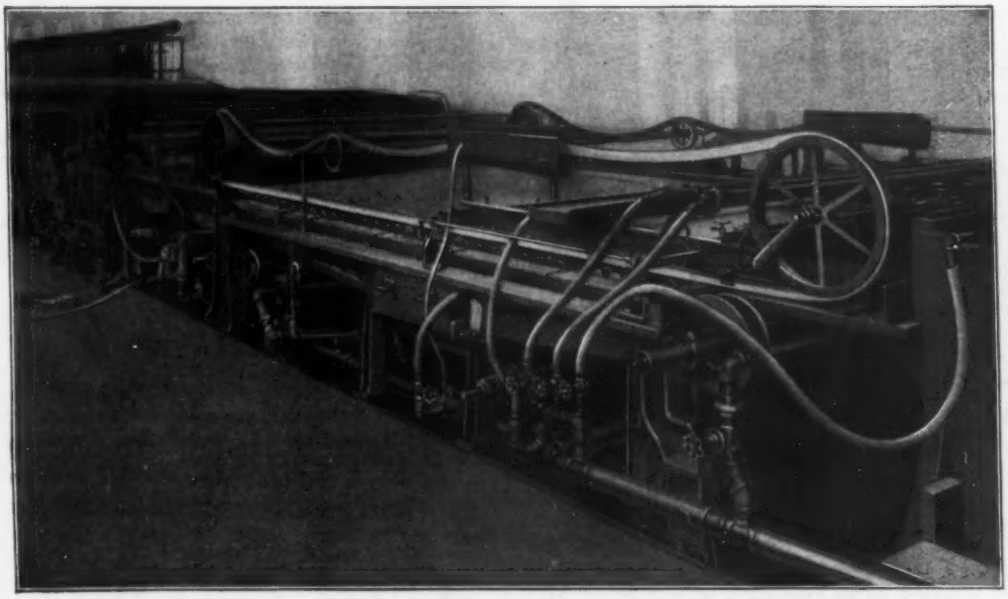
Another feature of this new equipment is that the "penny-saver" envelopes in either the number 9 or number 10 size can be manufactured on these machines.

The number 9 envelope is becoming more and more used for general correspondence and the demand has made it necessary for the company to instal a special machine for the making of this size. Another new machine is that used for making metal clasp envelopes at a very high speed.

The company has now a fully modern plant of high capacity and is equipped both mechanically and economically to provide the coast printing trade with its needs, great or small, in envelopes, both regular and special styles and sizes. Their policy has been to instal every modern equipment for increasing output and decreasing cost.

BELOIT IRON WORKS PAPER MACH'Y BELOIT WIS

A Record in Paper-Making Machinery



THE above illustration shows the BELOIT No. 360 straight FOURDRINIER equipped with the patented BELOIT SUCTION BOX OSCILLATOR—a combination that is giving universal satisfaction. There is no excess of pig iron on this machine. It is properly designed and amply strong for the work intended. It is built lighter than other makes in order to gain full effect of the shake. Others use heavy construction which absorbs the shake motion and this is lost in the formation of the sheet where it is needed.

Equipped with the latest type plain bearings, Timken Roller Bearings where shake is used or ball bearings where no shake is used. All bearings are fully enclosed.

When savealls are used, they are made of light non-corrosive metal and are very easy to handle. They are arranged to discharge into a hopper at the back of the machine and from there the whitewater is discharged to the fan pump.

The deckle is easily operated by a crank on each side of the machine. There are no bolts to be removed when lifting off the deckle in changing wires.

If you desire the most modern improvements in paper making, let your next machine be a "Beloit."

Beloit Iron Works BELOIT IRON WORKS PAPER MACH'Y BELOIT WIS **Beloit, Wis., U. S. A.**

NEW MACHINE TO BE ADDED BY THE PESHTIGO PAPER CO.

Directors of the Company Meet and Decide to Build Large Addition to Present Plant—Major A. J. McKay and G. G. Otto Join Seaman Paper Co. Organization—Committees Working on Program for Convention of Papermill Men in October—John Strange, who Died Recently, Left Estate of More Than $200,000—Will of William T. Whiting Filed—J. H. Delbridge on Tour.

[FROM OUR REGULAR CORRESPONDENT.]

APPLETON, Wis., July 10, 1923.—Construction of a large addition to the Peshtigo Paper Company plant at Peshtigo, in which a new paper machine is to be housed, will be started soon, it was learned following a meeting of directors and officers of the company at Peshtigo. No announcement of when the work will be started or about its size was made.

Among the men attending the meeting were John G. Sutherland, Dayton, Ohio, president of the company; W. T. Hedgecock, engineer; E. J. Schubring, Madison, a lawyer, and A. F. Gibbs and Morris F. Fox, head of a large bonding house.

Changes in the wood room of the fibre plant are imperative and will be made at once, Mr. Sutherland said after inspection of the plant. Directors also are considering changes in the water system to furnish a more pure supply. Water from the river is not quite the quality desired by the company.

Major McKay Joins Seaman Company

Major A. J. McKay, vice-president and director of the Combined Locks Paper Company for ten years and also vice-president and director of the Great Lakes Paper Company, has resigned these positions to become vice-president and a director of the Seaman Paper Company of Chicago. Major McKay left for Chicago on July 6 and assumed charge of his new work on July 10. G. G. Otto, who had been associated with Mr. McKay, also has joined the Seaman organization.

About 75 business men, professional men and manufacturers of the Fox river valley lauded Major McKay at a farewell banquet on the night of July 5. He was characterized as a 100 per cent business man and community booster. Major McKay has had leading parts in great welfare movements in the Fox river valley in the last decade. His most recent contribution to the public good was in connection with the erection of a $700,000 hospital in Appleton. Major McKay was trustee of the fund of almost $350,000 pledged by citizens of the valley and he is credited with making the public campaign a success.

No announcement has been made by the Combined Locks Paper Company of successors to Major McKay and Mr. Otto.

Working on Convention Plans

Preparations have been started by the local committees in charge of the district and national conventions of papermill men in Appleton on October 25 and 26. The local division of the American Pulp and Paper Mill Superintendent's Association and the local division of the Cost Association of the Paper Industry will hold their district conventions here on these dates and the national meeting of the Technical Association will be held here at the same time.

B. T. McBain, Port Edwards, is general chairman of arrangements. Other members of the committee are W. A. Kelley, Green Bay; J. H. Slater, Escanaba; S. C. Boyce, Wausau; Vance P. Edwards, Appleton.

Preparation of the program for these meetings is to be started in the near future. It is planned to have one or more joint meetings. Entertainment will be provided and it also is planned to visit some of the large mills in the Fox river valley.

Strike was Short-lived

Employees on one shift of the fiber mill of the Peshtigo Paper Company left their work a few mornings ago because of wage differences with the company. The matter was settled quickly, however, and the men returned to work.

Left a $200,000 Estate

The will of the late John Strange, head of the John Strange Paper Company of Menasha and the Stevens Point Pulp and Paper Company, of McDill, disposed of an estate valued at more than $200,000. The bulk of the property was left to the family. The wife and two sons were appointed executors. The will directs that the testator's stock in the John Strange and Stevens Point companies be held intact for ten years. The deceased directed that $4,000 be paid annually to his widow and this sum is to be increased to $6,000 after all claims are paid. The will directed that after all claims are paid that $25,000 be invested for the support of uplift and charitable organizations deemed worthy by the executors. He also directed that not less than $500 a year be paid for anti-saloon league work. Mr. Strange died suddenly at New London a few weeks ago while addressing a meeting of the New London Rotary Club.

Will of William T. Whiting

The net value of the estate of the late William T. Whiting of Oshkosh, prominent Wisconsin Paper mill man, was $192,782.65, according to the schedule filed with the state of Wisconsin. An inheritance tax of $8,666.64 was collected. The widow received $146,686.99 and the daughter, Kathryn Whiting, was allotted $48,195.66.

J. H. Delbridge on Bankers' Tour

Mr. and Mrs. J. H. Delbridge, Marinette, left on Thursday for Alaska as a member of Wisconsin Bankers' association tour. The party will travel about 5,000 miles through northwestern United States and Alaska.

Federal Reserve Board's Comment

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., July 11, 1923.—The Federal Reserve Board has the following to say in connection with the paper situation:

"News print production and shipments, after a drop in April, rose in May to the highest figures for any month on record. Stocks on hand increased slightly, but were still unusually low. Seasonal increases also occurred in production, consumption, and stocks of wood pulp during May, and likewise for the principal kinds of paper other than news print. They were also larger than during last May. Reports from the Philadelphia and Cleveland reserve districts indicate a slight slackening in the demand for many grades of paper during May and June. This is largely seasonal and the demand is generally still fairly satisfactory. Some manufacturers have curtailed production, but most book-paper and wrapping-paper plants are running at capacity. Wholesalers report that sales have fallen off since March. Contract prices have remained practically unchanged."

More Time for Filing Briefs

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., July 10, 1923.—Announcement has been made at the office of Assistant Secretary of the Treasury Moss that an extension of time has been granted to domestic paper manufacturers for filing their briefs in connection with the dumping of kraft paper on the American market from Scandinavian countries. The importers have already filed their briefs with the secretary.

You can Sell Once *by* Advertising—*but* Performance *wins* Repeat Orders

During the past year 11 mills, users of Niagara Beaters, have installed 25 additional Niagaras. It would be impossible to obtain a better recommendation for the performance of Niagara beaters.

A post card or letter will bring you full information regarding the manner in which Niagara Beaters give greater production, lower power costs, save labor and time and require a lower initial investment.

Valley Iron Works Company

Plant: **Appleton, Wis.** ***New York Office:*** **350 Madison Ave.**

Builders of Niagara and Holland Beaters, P. A. P. A. Rotary Pulp and Paper Screens, Voith Stock Inlets, Cylinder Machines, Fourdrinier Machines, Board Machines, Centrifugal Pumps, Stuff Pumps, Bandless Beater Rolls, Washing Engines, Bleaching Engines, Jordan Engines, Continuous Beaters.

PAPER MILLS IN ONTARIO RUNNING LIGHT AT PRESENT

Paper Board Mills Operating at Eighty Per Cent Capacity and, With Exception of News Print, Trade Is Inactive—Continental Wood Products Co. Get Extensive Timber-cutting Rights—Montreal Paper Official Declares Tariff is Disastrous to Canada's Export of Pulp and Paper to Australia—New Paper Mill to be Established Near Merriton, Ont., with Initial Outlay of $400,000.

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Ontario, July 10, 1923.—The Ontario pulp and paper trade has entered upon the summer doldrums and, with the exception of news print, most lines of paper are inactive. With buyers away on their vacation and with business generally experiencing the usual summer dullness, the paper salesman is having a rather tough time of it. Especially is this so in the jobbing end of the trade, while in manufacturing circles also the mills are only running at about 80 per cent capacity and are buying very lightly of board cuttings from the waste paper collectors. The paper box makers are also suffering from a lack of orders. On the other hand, the book paper mills are quite busy, large quantities of paper being used by the book and magazine publishers. Business with firms handling bonds and ledgers is quiet and the same may be said of the envelope trade.

The manufacturing stationery trade, which had been enjoying good business up to a few weeks ago, has fallen off and the best that can be said of conditions in this line at present is that business is very spotty. The wrapping trade is enjoying a fair business and tissue paper manufacturers, particularly in the specialty lines such as napkins, towels, etc., are quite active, with prices holding firm in these lines. It is agreed that the present slump is seasonable and the fact is that it has affected all lines of trade in Canada.

Following the withdrawal of price lists by several of the paper mills a few weeks ago has come the announcement of several slight readjustments. For instance, a couple of the mills have advised the jobbers of a drop of one cent a pound in one line of bond paper and a raise of half a cent a pound in the price of book and litho papers. During the past few weeks there have been a number of representatives of English firms in the Canadian market and while they have taken some orders they are not extensive in volume and, for the most part, their prices are being met by the Canadian manufacturer and jobber. The tonnage of waste paper collections has fallen off considerably but, notwithstanding this, there is no great demand for cuttings from the board mills which have reserve stocks on hand, although they are depleting them. The market for new cotton cuttings is quiet but prices are holding well, probably on account of the small stock of good grades. There are rumors of a drop in the price of board which usually goes down with lower rates for cuttings, which are now quoted at $19 per ton from the dealer to the paper mills.

Obtain Extensive Timber Rights

The Continental Wood Products Company, Limited, which has been granted the right by the Ontario Government to cut the pulpwood and timber from an area comprising 1,049 square miles, situated in the watershed of the Trout and Chapleau Rivers in the districts of Sudbury and Algoma, is the Canadian subsidiary of the Continental Paper & Bag Mills. Additional license and freehold timber lands will give the Continental Company control of approximately 1,340 square miles, all tributary to the saw mills and wood preparing plant at Elsas, Ont. Approximately 4,000,000 cords of pulpwood and timber are located in this territory. The company are committed to the project of establishing a $1,500,000 pulp mill and they may be later called upon to construct a paper mill for the manufacture of kraft paper. The industry is one that calls for the utilization of tamrack, jack pine, poplar and various kinds of timber that have hitherto not entered largely into the Ontario pulpwood industry. Construction of the pulp mill must be begun within the next six months according to the terms of the contract with the Government.

Foundered Tug Reliance Floated

The tug Reliance belonging to the Spanish River Pulp and Paper Mills, Limited, at Sault Ste. Marie, Ont., which foundered in Lake Superior last December off the coast of Lizard Island, has been floated and had been taken to Sault Ste. Marie by the tug Favorite of the Great Lakes Towing and Dredging Company.

Same Tariff Favored England

According to W. Gorman, Montreal manager of the Provincial Paper Mills, Limited, who has just returned after a trip to Australia and New Zealand, Canadian news print export is curbed by the tariff. The volume of Canada's exports of pulp and paper to Australia is dependent upon the present customs tariff of the Commonwealth, which favors the English producer, he says. English news print enters Australia duty free at present, while the Canadian product pays a duty of £3 per ton. On other grades of paper the English producer is aided by a differential of 10 per cent in duties as compared to those on Canadian products. It was, he said, impossible for Canadian paper to command a broad market in Australia until it enters the country on the same terms as the English product. All the Canadian manufacturer asks is equal treatment with the mother country, he stated.

Will Establish New Paper Mill

Through the efforts of E. C. Graves and Richard Clark, Merriton, Ont., a new paper mill representing an initial outlay of $400,000 will be established near that town in the Niagara Peninsula, according to an announcement just made. The new plant will employ a hundred hands and will manufacture a high grade specialty not previously turned out by any mill on the continent. L. H. Gardner, president of the Garden City Paper Mills at Merriton, will be the president of the new concern, which will operate under the same name. Plans are now being prepared for the new building.

Trade Notes and Jottings

E. Newall, of the Dominion Envelope and Carton Company, Limited, Toronto, who recently went to England to arrange financial matters in connection with the proposed new board mill the company proposes to erect near Toronto, has returned to the city. It is understood that his mission was successful and that the project will be gone on with shortly.

O. H. Moore, general manager of the Hind & Dauch Co., paper board manufacturers, Toronto, has returned from a holiday trip spent in the Adirondacks.

E. Pullan, president of E. Pullan, Limited, waste paper dealers, Toronto, has gone on a motor trip through Michigan and will visit Chicago before his return.

H. C. Woods, general manager of Warwick Bros. & Rutter, manufacturing stationers, Toronto, has gone on a business trip to England in the interests of his firm.

Casein Hearing on August 13

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., July 11, 1923.—The United States Tariff Commission has announced that it will hold a hearing on August 13 in connection with the investigation of casein now being conducted in accordance with provisions of Section 315 of Title III of the Tariff Act of 1922.

At this hearing all interested parties will be given an opportunity to be present and to produce evidence regarding cost of production and other facts pertinent to this investigation.

President
SIR FREDERICK BECKER

Manager of Sales
FRANK E. DUNAWAY

BECKER WOODPULP CO.

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ST. LAWRENCE PULP CO.,
} STRONG AND EASY BLEACHING SULPHITE

CHICOUTIMI PULP CO.,
CLYDE PULP CO.,
SISSIBOO PULP CO.,
} GROUND WOOD

New York Trade Jottings

J. J. Patricof has recently started out in business under his own name at 15 Park Row, where he will deal in paper makers' supplies. He resigned a short time ago as president of the Waste Material Trading Corporation.

* * *

William Wacht and Herbert P. Brock, of the Waste Material Trading Corporation, dealers in paper makers' supplies at 135 Broadway, were among the list of those who sailed on the Leviathan on July 4, the huge vessel's maiden voyage under the Shipping Board. They will spend several weeks in Europe in the interests of their business, but it is expected they will be back before the end of next month.

* * *

Leo William Bowmall, who for several years has been identified with the pulp and paper industry, has left it to take up his new duties with Levy & Nathan, of 222 Fourth avenue, operators of chain stores throughout the country. He resigned his position as vice-president and treasurer of the American Woodpulp Corporation. Until recently he was secretary of the Association of American Woodpulp Importers and had much to do with the passing of a number of important measures. His leaving the industry is regretted by his many friends throughout the trade, all of whom, however, wish him all success in his new field of endeavor.

* * *

Work is rapidly advancing on "the house that waste paper is building" at 533 West 48th street, a seven-story structure which the Salvation Army is making into a model social service institution. The cost, $30,000, is being met entirely out of the proceeds from waste paper gathered from the housewives of Manhattan. Colonel Edward J. Parker, head of the Social Service Department of the Salvation Army, believes the institution will be ready for a formal opening in October. It will have dormitories and working facilities for eighty "down-but-not-outers" at a time, and will include a complete store in which salvaged and repaired clothing, furniture and household goods will be sold at nominal prices.

* * *

The Waste Paper Merchants Association of New York, representing the bulk of the $15,000,000 waste paper packing industry of the city, has petitioned the Attorney-General to bring an action vacating the charter of the Salvation Army on the ground that as a religious and charitable corporation it is violating the provisions of the act under which it was created by conducting an extensive waste paper business. The papers were filed with the Attorney-General Friday. A hearing will be held before Deputy Attorney-General John J. Dwyer, at 51 Chambers street, July 17, at 10 A. M. The petitioner is Charles McBride of the Wilson Paper Stock Company, 452 West 19th street, as chairman of the Waste Paper Merchants Association committee on complaints against the Salvation Army. The other members of the committee are Walter McMahon of George Millar & Co, 284 Lafayette street, and Julius Gottlieb.

Culbertson Co. Opens Its Doors

[FROM OUR REGULAR CORRESPONDENT.]

CINCINNATI, Ohio, July 9, 1923.—On July 1 the Culbertson Paper Company of 319-321 East 8th street began its existence. The company has for its officers the following:

President, D. C. Culbertson; vice-president, Chester Mirick; treasurer, Alfred Crone; secretary, B. E. Culbertson.

The directorate is composed of the four above mentioned officers and Lawrence Hetch. The company is incorporated under the laws of Ohio and the offices and warehouse are at 319-321 East 8th street.

President Culbertson has had a varied career in the paper trade during the past 30 years. He has been identified at different times with such well-known firms as Chatfield & Woods Company of Cincinnati and Henry Lindenmeyr & Sons of New York City. More recently he had been secretary of Lewerth & Culbertson of New York City.

Mr. Mirick and Mr. Crone have both been in the paper business in Cincinnati for years and are well known to the trade. B. E. Culbertson is just entering the paper business. Mr. Hetch has been a salesman for a Cincinnati house for several years.

Regarding the policy of the Culbertson Company, President Culbertson states that it will confine its attention to selling printing papers, which are to be printed, to the printing trade only and that it will afford the trade its best protection by selling only such papers as it considers of high grade and exceptional value.

George J. Cadwell Made Sales Manager

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., July 10.—George J. Cadwell has been appointed sales manager of the American Writing Paper Company to succeed Carl E. Lincoln, resigned.

Mr. Cadwell is widely known in the paper industry. For the past several years he has been assistant sales manager of the Eagle-A organization and previous to then was connected with the Chicago office of the big paper-making organization.

Mr. Cadwell was born at Dewitt, Michigan, in 1873, and is a graduate of the University of Michigan, '94.

For a number of years he was connected in a managerial capacity with well-known engineering concerns, until he joined the forces of the Eagle-A organization.

During the war Mr. Cadwell was called to Washington, D. C., to engage in important confidential work connected with the Ordnance Department and Department of Justice, a work he completed with eminent satisfaction.

Sherwood Plant Damaged

[FROM OUR REGULAR CORRESPONDENT.]

BOSTON, Mass., July 10, 1923.—The plant of the Sherwood Paper Company, 22 Kent street, Somerville, was destroyed by fire on July 2 with a loss of $85,000. The blaze started from a flareback from a fire under the boiler which ignited waste paper stock.

The company manufactures wax paper. All of its stock, valued at $75,000 was either destroyed or so seriously damaged by water as to be useless, according to James A. Roberts, an official of the company. He estimated the damage to the building at $10,000.

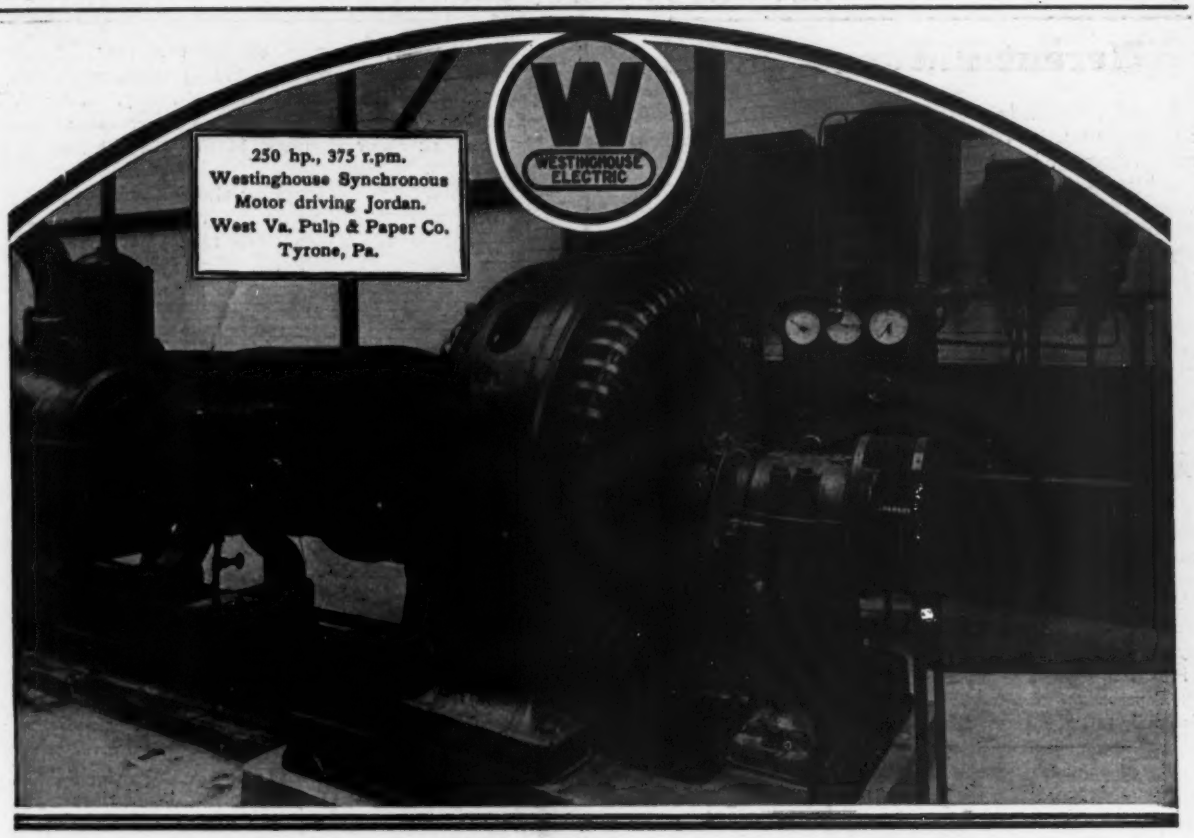
The night watchman, according to the story which fire department officials claim to have obtained from him, thrust a bundle of paper under the boiler and set it afire. A sudden flareback caused the flames to shoot out and catch waste paper lying about the floor.

Butler Corporation's New Office

The New York offices of the Butler Paper Corporations and the Butler American Paper Company, whose head offices are in Chicago, have just been removed from the Equitable Building to larger and more spacious quarters at 522 Fifth avenue.

These offices will be occupied by J. Charles Quinn, who directs the activities of the Butler American Paper Company, which is the export division of the Butler Paper Corporations, and Joseph H. McCormick, who, in addition to his position as president of the American Paper Mills Corporation of New York City, assumes the direction of the New York branch of the Butler Paper Corporations.

Temporarily the new telephone number is Murray Hill, 6817.



The use of Westinghouse synchronous motors for Jordan drive is followed by a marked improvement in plant power factor—

ADVANTAGES

In addition to improved power factor secured by the use of Westinghouse Synchronous Motors for Jordan drive, motor drive permits of the best arrangement of machines for the paper making process.

Line shafting and belt maintenance is eliminated, power cost reduced and highest overall plant efficiency attained.

Power consumption can be measured by electrical instruments and inconsistencies in plant operation readily traced to the offending cause.

The Jordan, with its fairly constant load and low starting torque, is an ideal machine for synchronous motor drive.

When Jordans are synchronous-motor-driven you secure not only the benefits of motor drive over the line shaft and belt method, but also improved line conditions and power factor correction.

While some paper manufacturers prefer synchronous motors exclusively for Jordan drive, others install them only in sufficient number to effect the much desired result—power factor correction.

Write our nearest district office for complete information on the benefits of Westinghouse Synchronous Motor Drive.

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Recent Incorporations

Parlor City Paper Box Company, Binghamton, New York, capital $100,000; incorporators R. A. Gray, H. L. Tay, D. B. Hinman, Attorneys, Hinman, Howard & Kattell, Binghamton.

Distinctive Writing Paper Company, Manhattan, New York, capital $20,000; incorporators D. and E. and D. Schinasi. Attorneys, Rosett & Deutsch, 130 West 42nd street, New York.

The Refublic Paper Board Company, Cincinnati, Ohio. Capital $300,000.

Northern Pulpwood and Timber Company, Chippewa Falls, Wis. Capital $50,000; 2,000 shares, par $25. Alexander Wiley, Robert L. Wiley and Grace Dorland, incorporators.

News of the Kalamazoo Trade

[From our regular correspondent.]

Kalamazoo, Mich., July 10, 1923.—July 4 was celebrated by many of the paper mills throughout the Kalamazoo valley district in allowing a majority of their employees a vacation to Thursday morning. Certain mills shut down at the end of the Saturday night run and devoted the ensuing brief period to overhauling machines and to a mid-summer house cleaning.

The Cost Association of the Paper Industry has closed its sessions until September or October. The year's activities wound up Saturday night with a dinner at Dixie Inn, West Lake.

Robert B. Best, Holyoke, Mass., has joined the staff of the Western Papermakers' Chemical company, of this city, and has moved his family to Kalamazoo. Mr. Best comes in the capacity of technical man, dealing with problems that arise in various concerns that are customers of the Western Papermakers' Chemical. He will spend much of his time on the road, visiting the various concerns in person, making tests and holding conferences with officials in the production departments.

The Eddy Paper Corporation of Illinois has moved its boxboard and specialties sales offices from Three Rivers to Chicago. John E. Holman, sales manager, has taken up his home in Chicago.

Donald Ross, formerly with the New York office of the Kalamazoo Vegetable Parchment company, has been transferred to Kalamazoo and is now assistant general sales manager of the concern.

The Dependable Club of the Allied Paper Mills held its June meeting at Turner's Landing, Gull Lake. Dinner was served at 6:30 P. M., followed by numerous short talks. There were 32 present.

Bids and Awards for Government Paper

[From our regular correspondent.]

Washington, D. C., July 3, 1923.—The Bureau of Engraving & Printing will receive bids on July 18 for 150,000 pounds of white check paper.

The Purchasing Officer of the Government Printing Office will receive bids on July 9 for 61,200 pounds (600 reams) of 21 x 31—102 flat colored bristol board. Bids will also be received on the same date for 50,000 pounds of pink bristol board in 20 inch rolls.

The Government Printing Office will receive bids on July 6 for 4,000 pounds of blue and white U S M O writing paper in 8½ inch rolls.

Bids will also be received on July 9 for 39,500 pounds (21,300 sheets) of best quality binders board and for 100,000 pounds (44,000 sheets) various sizes No. 2 quality binders board.

The Bureau of Supplies & Accounts, Navy Department, will receive bids on July 24 for 275,000 linen shipping tags. Bids will also be received on the same date for 610,000 Manila shipping tags for the Brooklyn Navy Yard and 250,000 of the same for the Puget Sound Navy Yard.

The Government Printing Office has received the following bids for 9,800 pounds (50 reams) White China Board, 22 x 28—196: R. P. Andrews Paper Company, $32.20 per M sheets; Dobler & Mudge, $44.00; Carter, Rice & Co., $33.75; Old Dominion Paper Company, $34.58; Mathers-Lamm Paper Company, $33.97; F. T. Parsons Paper Company, $32.70; Virginia Paper Company, Inc., $33.43; Broderick Paper Company, $45.00; The Whitaker Paper Company, $31.49.

The Government Printing Office has also received bids for 27,405 pounds (640 reams) white ledger paper, various sizes, Nos. 24, 28 and 48, and bids for 10,950 pounds (100 reams) heavy white ledger paper, 21 x 32½, 109½ pounds. No. 60 were also received.

R. P. Andrews Paper Company, $0.35 per pound and $0.27 per pound; The Whitaker Paper Company, .3241 and .3251; Old Dominion Paper Company, .409 and .399; Carew Manufacturing Company, .284 and .28; Dobler & Mudge, .28; Reese and Reese, .27665; F. T. Parsons Paper Company, .294 and .294; Barton, Duer & Koch Paper Company, .272; Typewriter & Office Supply Company, .315.

Bids for 6 rolls stereotype packing paper were received as follows: The Whitaker Paper Company, 3.85 per roll; and $3.70; Dobler & Mudge, $4.80; Sutphin Paper Company, Inc., $4.95 f.o.b. New York.

Frank W. Winne & Sons have been awarded the contract by the Bureau of Supplies & Accounts, Navy Department, for furnishing 30,450 pounds of 8 ply cotton twine at $12,478.41, bids for which were opened on June 19.

Hearing on Parchment and Waxed Papers

Kalamazoo, Mich., July 7, 1923.—Changes in the classification of parchment and wax paper, which, if made effective will seriously hamper Northern mills now doing business in the South, will be considered at a joint meeting of the Consolidated Classification Committee, at Chicago, Tuesday, July 10.

Official, Southern and Western territories will be represented.

The proposition is to advance parchment paper for southern points from fourth to third class in less than carloads and sixth to fifth class in carloads. Wax paper is to be boosted from fifth to third class in less than carloads and fifth to fourth class in carloads.

While the proposed changes will cover mills in the East and Middle West alike, the parchment mills in the first named territory will find relief in the low rates offered by water transportation. No such competitive rates accrue to the benefit of the Kalamazoo Vegetable Parchment Company and it is estimated that the change proposed, if it becomes effective, will nearly double shipping costs from Kalamazoo to points below the Ohio river.

Charles Winslow, traffic manager of the Chamber of Commerce, will attend the committee sessions, representing the interests of the Kalamazoo Vegetable Parchment company.

At the present time the K. V. P. enjoys a very large trade in southern territory and has distributing agencies at Atlanta, New Orleans and other points.

Chicago Feels Summer Dullness

[From our regular correspondent]

Chicago, July 9, 1923.—The dull period of the summer months is affecting the business of local paper merchants, but not to the extent that is usually expected at this time. At some of the offices, reports are to the effect that orders are coming in fairly well and that from present indications business should be good throughout the summer. At others, it is stated that there has been a gradual let-down of business, but not beyond expectations.

Printing papers are still in demand. Printers report a slowing up in their business, but practically all the work they have is for immediate delivery.

The paper stock market is enjoying a fair demand at reduced prices. Wherever board mills are running they are in need of supplies and are buying readily. Prices have been decreased from 10 to 30 cents per hundred pounds.

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Paper Bag Manufacturers Should Organize

BROOKLYN, N. Y., June 18, 1923.

Editor PAPER TRADE JOURNAL:

Bag manufacturers should and must organize for their mutual protection and self preservation. That the paper bag industry is in a state of chaos is a well known fact.

I therefore urge upon the manufacturers to put their heads together and devise ways and means of placing the industry on a sound and profitable basis.

The industry is suffering, and suffering badly for want of a real leader; a man of courage, vision, and foresight; a man who can show the manufacturers their shortcomings and who will make a strong attempt at steering the ship to a zone of safety from dangerous rocks.

After securing a man of the type of which I speak, the very first step for him to take is to organize the manufacturers into a national association.

The prime aim and purpose of this association should be to eliminate existing abuses and ruinous competition and to develop a more friendly feeling between the manufacturer and jobber. The manufacturers have no one to blame but themselves for allowing an important industry to sink to a level far below that of any legitimate business of which I know.

I. LEVIN,
314 Scholes Street, Brooklyn, N. Y.

[NOTE: This communication is reprinted because a typographical error when it was originally printed confused its meaning somewhat. EDITOR.]

Souvenir Book from Beckett Paper Co.

A book of absorbing interest and of unusual attractiveness comes to the PAPER TRADE JOURNAL under the title of "What A Buckeye Cover Man Saw in Europe." The book has been published to commemorate the seventy-fifth anniversary of the Beckett Paper Company of Hamilton, Ohio, and it will prove a most welcome souvenir to those in whose hands it fortunately falls.

The book is by Carl Richard Greer in collaboration with Thomas Beckett, President of The Beckett Paper Company.

The first portion of the book is devoted to the trip to Europe. The author saw much and vividly describes many things that the average traveller would overlook in the recital of his trip.

The latter portion of the book confines itself to telling the romantic story of The Beckett Paper Company. The trade will find much to interest it in this graphically told story and in the pictures which illustrate it. The latter include pictures of the original mill, the group of mill workers in 1876, the mill through its various periods of evolution up to the present day.

The book is readable from cover to cover and is a beautiful specimen of the printing art. The cover is the Beckett Company's own famous "Buckeye."

John Single Buys Syracuse Realty

SYRACUSE, N. Y., July 9, 1923.—John Single, proprietor of the John Single Paper company, has just acquired valuable realty in that city and intends to improve and develop the property, making it an important industrial center of the city.

The realty acquired by Mr. Single consists of a large piece of improved and unimproved property at South West and Tully streets and includes a five story block occupied by the Onondaga Trading Company and the National Trading Company. The property was held at $160,000. The property is especially valuable for industrial purposes because of the excellent switching facilities provided by the Delaware, Lackawanna & Western Railroad.

When asked as to the disposition he would make of the purchase, Mr. Single made it plain that it is his ambition to utilize it in creating one of the important down-town industrial centers. He may dispose of parts of his holdings. Mr. Single, whose business is located at 519-523 South Clinton street is also considering selling his building at that address and locating on the newly acquired property at South West and Tully streets.

Maine's Largest Timberland Sale

[FROM OUR REGULAR CORRESPONDENT.]

BANGOR, Me., July 7, 1923.—More than 20,000 acres of timberland in the town of Vanceboro, Me., were sold today to W. D. Hutchings and H. L. Pushon of Augusta, Me., and William B. Kendall of Bowdoinham, Me. The price paid was not given out, but it is said to have been in excess of $200,000, making it the largest timberland transfer of the year in Maine.

The timberland was sold by Jerome Butterfield of Kingman and John A. Weatherbee of Bangor. The town of Vanceboro, which is 114 miles northeast of Bangor on the Canadian border, comprises 23,700 acres and of this amount 20,240 acres was included in the sale, the remainder being the lots in the village proper. Vanceboro is the eastern terminus of the Maine Central railroad, which connects at that point with the Canadian Pacific railroad to St. John and Halifax, N. B.

Suit to Clear Way for Power Site

[FROM OUR REGULAR CORRESPONDENT.]

SPOKANE, Wash., July 9, 1923.—The first step toward the development of a power site on the Spokane River between Trent and Greenacres has been taken with the filing by Fred B. Morrill as attorney for John A. Weeks and Edmund R. Weeks of a suit against the Northern Pacific Railroad Company and 52 other companies or parties.

The suit is brought to quiet title on 500 acres or more of land along both banks of the Spokane River between Trent and Greenacres. The Weeks Brothers, who are representing the Inland Empire Company in the litigation, say that it is the intention as soon as the legal difficulties have been overcome, to develop a power site where approximately 20,000 horsepower may be harnessed. The rights involved in the suit are riparian, flowage, easements and questions of rights of way.

Improvement in Czechoslovakia

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., July 11, 1923.—Acting Commercial Attache Groves, at the Prague, has the following to say in a report to the Department of Commerce on the improvement in the Czechoslovakian paper industry:

"Reports indicate that the improvement in the paper industry of Czechoslovakia, which has recently set in, is spreading to the eastern part of the country. Press reports state that the Ruzomberok Paper & Cellulose Factory in Slovakia, capitalized at over 12,000,000 crowns and employing 1,700 men, which has been idle for five months, will shortly resume full operation. The management is offering to re-engage all hands on a basis of a 40 per cent reduction in wages, which has been agreed to by the employees' union."

Let Contract for Kraft Paper Mill

[FROM OUR REGULAR CORRESPONDENT.]

MONROE, La., July 7, 1923.—The H. L. Brown Paper Company of this place has contracted with the Morton C. Tuttle Company of Boston, Mass., to construct a fifty-ton kraft paper mill, to be located near Monroe.

The paper will be made of Southern yellow pine cut from a tract of 30,000 acres of woodland, now in second growth, recently bought by the company. Construction work on the new mill will start immediately.

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New Orleans	New Haven	Paterson	

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PAPER AND PAPER STOCKS IMPORTS AND EXPORTS OF THE UNITED STATES

For the Month Ending April 30, 1923, and for the Ten Months Ended April 30, 1923, as Compared with Corresponding Months of Two Previous Years

IMPORTS—PAPER.

Paper and Manufacturers of		April				Ten Months Ended April 30			
		1922		1923		1922		1923	
		Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Paper, except printed matter (total)		.....	$6,530,226	.....	$9,856,994	.....	$67,572,453	.....	$82,610,346
Printing papers—									
Standard newsprint	lbs.. Free	154,738,775	$5,285,534	223,424,387	$8,369,650	1,524,823,304	$59,843,722	1,927,684,071	$69,605,891
All other, n. e. s.	lbs.. Dut.	50,540	8,112	1,096,862	52,581	347,057	49,512	8,459,458	471,997
Grease proof and waterproof papers	lbs.. Dut.	.....	.....	163,738	16,013	.....	.....	[1]1,333,543	[1]124,276
Wrapping paper	lbs.. Dut.	3,954,984	147,425	7,328,163	313,843	18,668,553	709,541	70,495,700	3,101,712
Writing, drawing, bond, etc.	lbs.. Dut.	.....	.....	286,090	54,771	.....	.....	[1]1,699,155	[1]396,101
Surface coated	lbs.. Dut.	36,859	15,606	91,906	30,143	571,651	133,409	833,820	332,581
Tissue papers	lbs.. Dut.	.....	.....	156,271	91,306	.....	.....	[1]1,175,182	[1]500,992
Paper boards—									
Pulp boards in rolls	lbs.. Dut.	6,177,914	157,020	7,637,479	217,694	37,641,724	996,805	52,424,845	1,364,748
Other paper boards, n. e. s.	lbs.. Dut.	.....	.....	2,664,427	73,483	.....	.....	[1]14,995,075	[1]420,222
Cigarette paper, cigarette books and covers	lbs.. Dut.	.....	$74,035	966,426	270,863	.....	2,893,254	.....	2,929,725
Photographic paper	lbs.. Dut.	290,694	54,258	96,369	16,211	1,997,681	333,136	1,953,305	407,306
Hanging paper	lbs.. Dut.	.....	43,705	769,396	41,577	.....	359,697	.....	495,536
Decalcomania, not printed	lbs.. Free	.....	11,446	22,824	6,008	.....	80,590	.....	79,335
All other	lbs.. Dut.	.....	233,085	.....	302,851	.....	2,172,787	.....	2,479,924
CRUDE PAPER STOCK									
Rags for paper stock	lbs.. Free	22,142,456	285,722	45,492,474	798,344	171,384,468	2,513,252	303,022,688	5,099,069
Waste bagging, waste paper, etc.	lbs.. Free	.....	.....	12,447,161	197,755	.....	.....	[2]99,815,865	[2]1,320,495
Old rope and all other paper stock	lbs.. Free	8,915,822	228,289	12,834,471	595,862	113,464,878	2,477,079	119,958,587	4,093,633
WOOD PULP									
Mechanically ground	tons.. Free	10,533	318,861	15,345	570,384	182,468	4,804,623	211,174	6,794,682
Chemical—									
Sulphite, unbleached	tons.. Free	25,589	1,418,783	25,042	1,438,016	269,642	15,154,311	428,615	21,875,903
Sulphite, bleached	tons.. Free	16,464	1,438,707	20,100	1,836,255	118,212	10,258,416	213,789	18,210,331
Total	tons.. Free	42,053	2,857,490	45,142	3,274,271	387,854	25,412,727	642,404	40,086,234
Imported from—									
Finland	tons	.....	.....	9,650	557,185	.....	.....	53,866	2,907,049
Norway	tons	.....	.....	5,601	471,202	.....	.....	64,158	4,543,080
Sweden	tons	.....	.....	1,836	116,724	.....	.....	243,261	13,312,132
Canada	tons	.....	.....	24,154	1,836,755	.....	.....	254,141	17,592,644
Other countries	tons	.....	.....	3,901	292,405	.....	.....	26,978	1,731,329
Soda pulp	tons.. Free	.....	.....	.....	.....	.....	.....	[1]1,066	[1]67,492
Sulphate pulp, unbleached	tons.. Free	15,652	948,944	17,252	1,099,086	185,201	11,154,721	231,627	13,709,489
Imported from—									
Finland	tons	.....	.....	4,237	246,168	.....	.....	13,987	727,800
Norway	tons	.....	.....	1,150	42,429	.....	.....	8,223	424,796
Sweden	tons	.....	.....	854	48,710	.....	.....	93,272	4,899,210
Canada	tons	.....	.....	11,011	761,779	.....	.....	115,485	7,620,672
Other countries	tons	.....	.....	.....	.....	.....	.....	660	37,011
Sulphate pulp, bleached	tons.. Free	456	36,870	464	36,997	5,435	348,613	21,013	1,224,187
Other pulp	tons.. Free	.....	.....	189	16,285	.....	.....	[1]872	[1]35,815
CHEMICAL AND OTHER PAPER MAKERS' MATERIALS									
Color lakes	tons.. Dut.	.....	.....	335	318	.....	.....	[1]2,414	[1]2,972
Indigo—									
Natural	tons.. Dut.	.....	.....	.....	.....	20,619	26,626	14,001	13,769
Synthetic	tons.. Dut.	4,198	4,504	.....	.....	434,116	266,998	14,257	12,584
Dyes, colors, stains, etc.	tons.. Dut.	.....	.....	223	255	.....	.....	[1]4,376	[1]7,580
Colors or dyes, n. e. s.	tons.. Dut.	357,832	567,533	.....	.....	2,853,284	4,108,599	[2]832,001	[2]1,408,192
Colors, dyes, stains, color acids, and color bases, n. e. s.	tons.. Dut.	.....	.....	288,937	414,946	.....	.....	2,019,071	2,726,563
Imported from—									
Germany	tons	.....	.....	116,138	146,521	.....	.....	.....	.....
Switzerland	tons	.....	.....	96,089	156,367	.....	.....	.....	.....
United Kingdom	tons	.....	.....	14,031	18,753	.....	.....	.....	.....
Other countries	tons	.....	.....	62,679	93,305	.....	.....	.....	.....
Casein or lactarene	tons.. Free	1,507,027	101,547	.....	.....	8,995,864	574,229	[1]3,288,534	[1]346,431
	tons.. Dut.	.....	.....	3,990,151	693,558	.....	.....	[2]17,205,432	[2]2,827,094
Kaolin, china, and paper clay	tons.. Dut.	27,176	297,304	20,638	234,732	156,201	1,630,825	257,119	2,777,696
PULPWOOD.									
Rough	Cord Free	10,710	93,312	22,581	138,882	135,345	1,592,883	260,086	2,360,078
Peeled	Cord.. Free	50,853	556,623	68,612	667,873	471,018	5,182,809	607,080	5,962,285
Rossed	Cord.. Free	3,408	42,212	7,525	79,957	55,989	849,542	107,548	1,437,242

[1] July 1 to Sept. 21. [2] Beginning Sept. 22.

(*Continued on page* 46)

From Waste Water Power to Useful Steam

G-E Electric Steam Generator utilizing surplus power in pulp and paper industry

G-E Electric Steam Generator

MOST manufacturing plants require a continuous steam supply. G-E electric steam generating equipment makes possible the maintenance of a supply sufficient for night and holiday demands without operating the main boiler plant.

Utilizing as it does water power which would ordinarily be wasted, the electric steam generator effects a substantial reduction in operating expenses.

G-E engineers will be glad to show you how to obtain full value from your power plant by installing this equipment, which can be furnished in capacities up to 30,000 kilowatts.

General Electric Company

General Office Schenectady, N.Y.

Sales Offices in all large cities

43B-731

PAPER AND PAPER STOCKS IMPORTS AND EXPORTS OF THE UNITED STATES

(*Continued from page 44*)

EXPORTS—PAPER.

Paper and Manufactures of	April 1922 Quantity	April 1922 Value	April 1923 Quantity	April 1923 Value	Ten Months Ended April 30 1922 Quantity	Ten Months Ended April 30 1922 Value	Ten Months Ended April 30 1923 Quantity	Ten Months Ended April 30 1923 Value
Paper, except printed matter (total)	.....	$2,164,635	.....	$2,181,839	.....	$16,375,817	.....	$20,741,863
PRINTING PAPER—								
News Print ..... lbs.	6,686,098	308,179	2,950,509	144,861	32,974,278	1,557,175	33,002,240	1,576,643
Exported to—								
Canada	290,238	20,786	144,990	14,966	770,776	55,323	1,574,723	106,025
Central America	184,495	9,861	107,485	6,058	1,762,517	97,972	1,321,022	72,009
Cuba	1,073,906	43,778	2,112,533	92,595	13,190,666	595,519	17,940,559	775,284
Argentina	3,020,076	118,135	.....	.....	7,983,430	313,485	2,274,830	91,120
Other South America	575,842	26,627	170,168	9,274	2,639,878	137,661	3,187,744	164,442
China	361,280	14,593	44,566	3,445	1,261,256	51,605	478,610	21,935
Japan	770,580	51,016	.....	.....	1,199,246	75,452	594,388	41,407
Philippine Islands	255,247	11,857	269,293	12,332	2,744,582	138,863	3,961,561	191,269
Other countries	154,434	11,526	101,474	6,191	1,421,927	91,295	1,668,803	113,152
Book paper, not coated ..... lbs.	2,336,245	234,816	2,119,224	243,525	16,537,815	1,822,247	24,860,739	2,521,709
Exported to—								
United Kingdom	23,885	4,722	31,847	6,452	307,651	60,628	509,525	107,969
Canada	247,046	25,144	103,449	16,158	2,265,294	465,562	2,237,111	256,530
Central America	19,134	2,356	62,276	6,711	472,407	66,021	443,593	49,952
Mexico	107,599	12,350	320,957	37,137	2,387,095	272,402	2,316,341	218,680
Cuba	574,322	55,671	860,936	88,155	2,357,968	240,895	6,316,196	636,978
Argentina	31,994	3,451	48,297	11,825	293,323	39,479	1,530,723	153,275
Brazil	74,335	8,201	43,557	5,361	512,246	75,419	1,277,593	138,086
Venezuela	103,351	13,756	35,460	3,702	565,184	68,514	500,810	55,562
Other South America	113,980	9,490	202,110	21,415	821,271	82,688	1,543,071	150,459
British India	5,216	734	5,551	667	422,860	42,139	205,371	23,214
China	214,689	21,400	32,856	6,367	1,381,252	138,909	1,047,552	103,048
Japan	424,940	28,010	83,581	8,171	2,218,369	190,772	2,101,459	165,236
Philippine Islands	210,403	30,234	142,191	13,685	1,113,129	128,869	3,224,753	286,722
Australia	47,381	4,522	34,015	3,713	548,934	54,104	759,281	84,512
Other countries	137,970	14,775	112,141	14,006	870,832	95,846	847,360	91,486
Cover coated ..... lbs.	112,378	16,375	146,738	27,001	[2]402,466	[2]61,273	1,319,504	190,453
Grease-proof and waterproof paper ..... lbs.	98,241	10,808	67,353	11,792	.....	77,075	1,105,152	148,408
Wrapping paper ..... lbs.	.....	.....	.....	.....	[1]11,682,845	[1]777,175	.....	.....
Kraft wrapping ..... lbs.	50,297	3,960	44,326	4,250	[2]315,980	[2]25,378	568,583	45,800
Other wrapping ..... lbs.	3,662,815	199,164	2,247,238	184,968	[1]11,856,496	[1]701,594	24,177,634	1,759,267
Writing paper and envelopes ..... lbs.	.....	.....	.....	.....	.....	[1]1,033,894	.....	.....
Writing paper, except in papeteries ..... lbs.	716,793	121,045	611,301	86,931	[2]2,329,603	397,786	6,144,739	913,190
Surface-coated paper ..... lbs.	264,518	44,575	272,115	37,764	[1]1,000,704	[1]195,445	3,052,016	450,308
Tissue and toilet paper ..... lbs.	.....	.....	.....	.....	.....	[1]398,118	.....	.....
Tissue and crêpe paper ..... lbs.	182,961	46,997	247,921	58,970	[2]734,875	[2]179,475	2,675,187	689,385
Toilet paper ..... lbs.	396,131	38,553	352,232	48,525	[1]1,412,094	[1]150,464	4,122,808	466,435
Paper towels and napkins ..... lbs.	67,669	10,918	121,827	18,109	.....	121,382	856,261	145,747
Bristols and bristol board ..... lbs.	254,187	30,477	155,039	14,404	[2]517,278	[2]66,677	1,747,790	145,755
Paper board and straw board ..... lbs.	3,803,135	157,708	3,483,005	187,681	.....	1,267,024	39,103,842	1,840,566
Sheathing and building paper ..... lbs.	533,722	20,936	330,666	11,773	[1]1,529,383	[2]59,514	4,683,977	165,160
Wall board of paper or pulp ..... sq. ft.	1,279,285	44,433	1,450,168	56,871	.....	319,072	10,653,236	372,351
Cigarette paper and books ..... lbs.	65,806	19,784	21,874	5,050	[2]245,886	[2]99,705	534,803	188,263
Photographic paper ..... lbs.	126,698	122,383	98,594	98,600	[2]525,999	[2]496,566	1,083,502	1,151,732
Paper hangings (wall paper) ..... yard	1,488,708	43,054	2,314,086	79,002	.....	353,301	16,823,764	418,552
Paper bags ..... lbs.	1,081,488	101,507	886,636	85,875	.....	718,282	8,677,767	795,626
Boxes and cartons ..... lbs.	1,200,062	73,029	1,199,935	95,815	.....	820,237	8,126,034	766,709
Carbon paper ..... lbs.	68,093	53,815	62,732	49,055	.....	385,251	586,032	460,069
Envelopes ..... lbs.	262,034	44,533	201,472	40,574	[2]831,094	[2]154,336	2,099,743	412,356
Playing cards ..... pack	289,528	45,101	1,056,814	112,130	.....	332,389	7,799,264	903,208
Cash-register and adding-machine paper ..... lbs.	79,149	8,931	144,608	13,509	.....	[2]90,117	881,574	91,457
Papeteries (writing paper in boxes) ..... lbs.	20,989	7,471	44,442	12,042	61,576	24,156	334,687	115,352
Other paper and paper products, n.e.s. ..... lbs.	3,777,935	356,083	4,819,168	452,762	.....	3,690,709	36,631,402	4,007,362
Books, maps, pictures and other printed matter (total) ..... lbs.	3,450,864	1,253,099	3,992,199	1,386,437	.....	14,516,479	39,076,731	14,474,824
Books, maps, pictures, etc	.....	.....	.....	.....	.....	[2]9,481,915	.....	.....
Books and Pamphlets ..... lbs.	1,755,309	630,556	2,029,511	721,982	[2]6,276,636	[2]2,313,745	19,899,077	6,853,364
Maps and charts ..... lbs.	7,668	12,061	11,266	9,040	[2]39,896	[2]61,781	146,719	135,272
Music in books or sheets ..... lbs.	34,273	22,654	36,746	20,609	[2]148,821	[2]107,721	403,115	275,456
Souvenir post cards ..... lbs.	189,146	20,133	40,510	18,024	[2]711,924	[2]89,503	347,101	159,477
Lithographic printed matter, except post cards and maps ..... lbs.	118,540	66,306	184,234	137,149	[2]547,715	[2]275,816	1,611,786	1,256,931
Other printed matter ..... lbs.	1,345,928	501,389	1,689,932	479,633	[2]6,119,622	[2]2,185,998	16,668,933	5,794,324

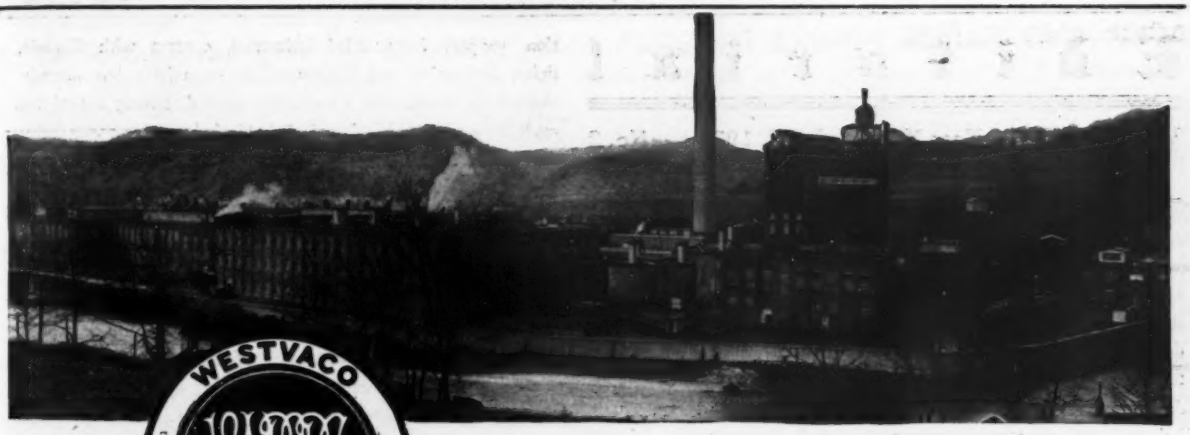
WOOD PULP AND PAPER STOCK.

Sulphite wood pulp ..... tons	1,618	68,235	280	22,497	[2]6,798	[2]295,569	11,430	668,119
Soda wood pulp ..... tons	327	26,766	168	12,967	[2]1,228	[2]111,626	2,584	226,337
Other wood pulp ..... tons	281	22,846	50	996	[2]653	[2]51,011	1,866	69,150
Rags, and other paper stock ..... lbs.	7,288,291	115,146	10,455,094	202,960	57,450,630	876,175	58,087,188	1,139,897

PAPER AND PULP MILL MACHINERY.

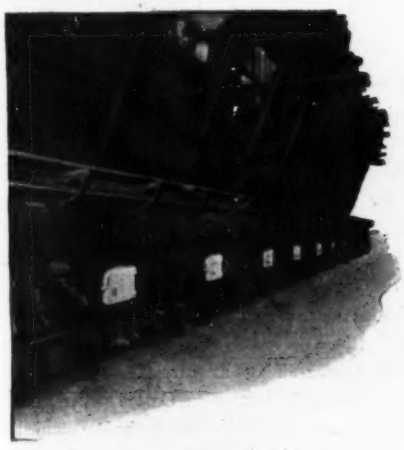
Paper and pulp-mill machinery ..... lbs.	433,678	117,690	1,560,069	252,898	.....	2,236,569	11,279,008	1,749,361

[1] July 1 to Dec. 31, 1921. [2] Jan. 1 to April 30.



Twenty Edge Moor Boilers are in service in the Covington, Va., plant of the West Virginia Pulp and Paper Co.

Below: Some of the 20 Edge Moor Boilers in the Luke, Md., plant.



West Virginia Pulp and Paper Co.

"THE world's largest manufacturers of high-grade printing papers" are among the largest users of Edge Moor Water Tube Boilers.

The daily production of 1200 tons of "Westvaco" pulp and paper requires the consumption of more than 1900 tons of coal every twenty-four hours. In four of its great plants, situated at Covington, Va., Luke, Md., Mechanicville, N. Y., and Tyrone, Pa., the West Virginia Pulp & Paper Company has in service 59 Edge Moor Boilers, totalling 34,500 H. P.

These boilers represent a total of eighteen separate orders issued over a period of twenty-four years—the first in 1899.

The quality of the Edge Moor Boiler and the service it renders are unmistakably indicated by the record of repeat orders from industrial leaders.

EDGE MOOR IRON COMPANY

Established 1868

EDGE MOOR, DELAWARE

New York Chicago St. Paul Boston Pittsburgh Charlotte

EDGE MOOR Water Tube BOILERS

FOR INCREASED FUEL ECONOMY

Editorial

Vol. LXXVII New York, July 12, 1923 No. 2
HENRY J. BERGER, Editor

MEETING A CRISIS

That the paper men of the United States are fully alive to the grave results that are likely to result to the American paper industry, by the embargo on Canadian freehold pulpwood was evidenced this week by the formation in New York of the Committee on Perpetuation of the Paper Industry of the United States. Action on no problem that has confronted the American paper industry was ever more spontaneous and the personnel of the committee indicates that no legitimate means will be spared to make our neighbors across the line see from a different angle than they have as yet viewed it what is considered here as a most unfair proposition.

The committee in its work will require funds, and in order to raise them it has voted a nominal assessment on every paper and pulp mill in the country. In making this levy the committee has made the following statement which will serve to emphasize the seriousness of the situation and which should also serve to provide immediately all the funds that are required:

"The paper industry of the United States has had a remarkable development. Its production has increased from 4,000,000 tons in 1909 to 7,000,000 tons in 1922. Its development has been based on a tremendously increased consumption of pulpwood, and on similar increases in the importations of wood and pulp from Canada.

"In addition to the increasing drain on the forests of this country to supply the raw materials for the lumber and paper industries, our forests have suffered unusual destruction by fire, insects and fungi. In recent years the spruce bud worm alone has killed millions of cords of pulpwood in the Northeast. Our forests are growing only about one fifth as fast as they are being destroyed by lumbering, fire and insects. This, in itself, is a serious situation.

"Paralleling our development, but more recently, the Canadian paper industry has tremendously increased its production, particularly of news print. In 1910 Canada exported only about 25,000 tons of news print to the United States; last year, almost 1,000,000 tons.

"During recent years a movement has developed, which culminated on June 26 in a resolution passed by the Canadian House of Commons at Ottawa authorizing the government to make regulations prohibiting the export of freehold pulpwood. Similar restrictions were passed as early as 1900, prohibiting the export of pulpwood from Crown lands. The result of this resolution, if made effective, would be most serious for the paper industry of the United States. Our industry depends on Canadian pulpwood, for at least 20 per cent of its annual consumption. Our own forests are being cut from four to five times as fast as they are replaced by growth. We must have Canadian pulpwood!

"The seriousness of this Canadian situation is apparent. An able Committee, representing the entire paper industry of the United States, has been appointed to protect our industry's interests. This committee has grouped itself into sub-committees covering information, support from allied industries, contact with Canada, publicity, legislation and finance. The committee has already commenced its work, and a carefully worded, strong appeal has been made to Secretary Hughes, in behalf of the entire paper industry of the United States, urging action by our Government in connection with the Canadian Government's pulpwood export resolution.

"Further work of the committee will consist in a rapid, comprehensive survey of the available pulpwood supplies of the United States and Canada, and possibly of Europe, with data indicating the rate of consumption and destruction by fire, insects and fungi, as well as the normal growth and methods of increasing production through careful management and artificial reforestation. In addition to these data, the committee is developing figures covering the cost of manufacture of pulp and paper, both here and abroad, in order to have all the necessary information on which to have proposed legislative relief, or organized action by the paper industry of the United States, for its own perpetuation.

"The seriousness of this situation has necessitated action by a group representing the entire paper industry. The problem is larger than the scope of any one association in the paper industry, and the results will be beneficial to every grade in the paper industry of the United States, from the coarsest boards to the finest bonds. This is a serious issue and involves immediate, definite, aggressive action by the entire paper industry."

PAPER EDUCATION IN OHIO

The paper manufacturers of Ohio are making good use of the educational material that has been developed in the paper industry by the Technical Association of the Pulp and Paper Industry and the Federal Board for Vocational Education. The vocational education plans for the paper mills of Ohio that were developed by the Miami Valley Paper Manufacturers' Association in co-operation with the State Board for Vocational Education is three fold and includes foreman instructions, evening school work and correspondence school work.

The foreman instructor training as carried on now, in the Gardner-Harvey paper mills, the Champion Coated paper mill with two groups of foremen and the Shuler-Benninghofen woolen mill that manufactures paper mill felts, is the discussion or development method.

All foremen of the group participate in the discussions which lead to individual thinking of their particular jobs, and analysing the various details that go to make up their responsibilities.

These group discussions and pooling of ideas lead the men to discover that maximum production depends upon their co-operation and team work and with other departments and with the management.

The foreman who has come up through the ranks often does not have the point of view of the management and these foreman conferences furnish an ideal place to discuss management point of view, supervision and instructional responsibilities.

Other important advantages of the foremen conference are:

1. Better co-operation between: (a) Management and foremen; (b) Foreman and foreman; (c) Foremen and men.
2. Reduces labor turnover.
3. Helps foremen to feel that they are a part of the whole plant.

4. Gives a foreman some notion as to how far he can go.
5. Gives foremen a chance to talk things over.
6. Lowers production costs.
7. Better understanding of plant policies and management.
8. Develops ability to think analytically.
9. Increases interest on the job.
10. It helps the foreman to handle his men better.
11. It helps the foreman to instruct new men.

The evening school work was developed at the suggestion of the foreman training group of the Gardner-Harvey plant. The text used for this work was Vol I of the series of books put out by the Joint Committee of Vocational Education.

Lesson sheets were prepared from the text and used in class work. These sheets were carried into the mills by the students and often foremen and workmen would help the students with the problems. The classes met twice per week, with alternate weeks on account of shift work.

There is perhaps no better way to sell vocational education to an industry than through a foreman training group. If the management and foremen are sold on the idea of training, the men will soon assume the same attitude.

Credit is also due the foreman training groups of the Miami Valley paper makers for the development of a correspondence course for the paper makers of Ohio.

The idea is to give the men in the plants a chance to get hold of the material that has been prepared by theTechnical Association of the pulp and paper industry.

Many thoughtful and ambitious persons connected with the pulp and paper industry have been obliged to leave school at an early age; others did not appreciate the opportunities offered them of mastering the fundamentals of an education; while still others have forgotten a considerable portion of what they learned and have no convenient facilities for refreshing their memories. To meet these situations a course in mathematics and science, equivalent to these portions of a high school curriculum have been prepared especially for the pulp and paper industry, as preparatory to the later study of the more practical subjects of technology and manufacturing.

Where several students living in one community are registered in the same course, it is possible for them to unite for mutual assistance and study. A correspondence course offers valuable means for the employment of spare time, and it is found that a person's interest and competency in his regular work is increased through the efforts he gives to correspondence study.

Also, most employers approve of the efforts made by workmen in their employ to continue their education either in a general way or for the specific purpose of preparing themselves to fill positions for greater responsibilities.

TO CONTINUE PAPER STATISTICS

The American Paper and Pulp Association is to be commended on its quick action in planning to continue the statistics on the production and shipments of pulp and paper which work is just being discontinued by the Federal Trade Commission. These statistics which have been compiled by the commission since 1917 have come to be greatly appreciated by many persons and organizations interested in the progress of the pulp and paper business.

"The success of the effort will be dependent, of course," says Dr. Baker, secretary of the American Paper and Pulp Association, "upon the co-operation of the mills of the country, but as they have previously reported to the Federal Trade Commission, it is not thought likely that they will be less willing to file the same statistics with an organization of their own industry.

"The governmental form of report will be used in making reports to the Association, the only difference being that the report blank will carry the name of the American Paper and Pulp Association instead of the Federal Trade Commission.

"The details of the collection of the statistics are rapidly being worked out but of course there will be some delay in getting out the figures for June.

"Inasmuch as the American Paper and Pulp Association is a federation of associations representing the different paper making groups, the collection of the statistics will be done as far as possible through these group associations, and the News Print Service Bureau which, as it includes Canadian mills also, is not a member of the American Paper and Pulp Association. The newsprint figures will be furnished the American Paper and Pulp Association through the News Print Service Bureau, exactly as is planned for the Association's affiliated groups.

"This method of collecting the statistics, therefore, will avoid the duplication of reports by mills belonging to the group associations, but will continue the same form of reports previously made by the outside mills to the Federal Trade Commission. To this extent the collection of the statistics by the American Paper and Pulp Association will be a simplification of the previous method of compiling production figures for the industry."

"Life and Times of Alvah Crocker"

At last the achievements of Alvah Crocker, paper manufacturer, have found fitting expression in a volume entitled "Life and Times of Alvah Crocker," written by William Bond Wheelwright and dedicated to the memory of his friend, Alvah Crocker, a great grandson of the elder Crocker, and who gave his life in the World War.

The man whose life's work inspired this book achieved large things which remain as monuments to his memory. Among them may be mentioned the building of the Fitchburg Railroad, its extension to the west through the Hoosac Tunnel, the establishment of a great paper manufactory, and the founding of Turner Falls, Mass.

Alvah Crocker was 21 years of age when he entered the employ of General Leonard Burbank, the first paper-maker in Fitchburg. Three years later—in 1826—he borrowed capital to acquire a mill site in West Fitchburgh where he started manufacturing paper by hand. The little business suffered many trials and tribulations. By slow stages the business progressed, however, until 1850 when Mr. Crocker formed a business alliance with Gardner S. Burbank, a nephew of Mr. Crocker's old employer.

Mr. Wheelwright's book tells entertainingly of the growth of the business until Mr. Crocker died in 1874 when the plant consisted of seven mills with a total daily product of 17 tons. On January 1, 1923, the company had 19 paper machines with a total daily capacity of 300 tons.

"Life and Times of Alvah Crocker" will prove fascinating reading for anyone who finds entertainment in the recital of business success accomplished in spite of many obstacles. It is of especial interest to those who are engaged in the paper trade.

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PULP and PAPER

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BLEACHED SULPHITE
AGENTS GULSKOGEN
CELLULOSEFABRIK
EASY BLEACHING
SULPHITE

Section of the
Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Conducted by W.G. MacNAUGHTON, Secretary

DEGREE OF DISSOCIATION AND UNSAPONIFIABLE MATTER IN ROSIN SIZE*

By A. Haug

(Concluded from last week)

The Unsaponifiable Matter in the Rosin Soap

The second factor, whose influence must be taken into consideration, is the percentage of unsaponifiable matter in the rosin soap. A rosin milk is prepared with 20 percent unsaponifiable matter and with the rosin soap dissolved in distilled water; in the second case the distilled water was replaced by factory water. In considering the first case, it was found that there were in general very few differences to be noted in the various concentrations of the rosin milk. Nevertheless it was quite apparent that the dissociation was impeded and that the emulsion contained somewhat larger particles. It appeared that the presence of the free rosin in the rosin milk had the effect of causing the small particles of the rosin to coagulate into larger particles. However this phenomenon was not very apparent in this case.

In the preparation of rosin milks of different concentrations it was observed that the dissociation first set in gradually, but not so quickly as when the free rosin was not present. The dissociation was accordingly determined twice, once after six hours and

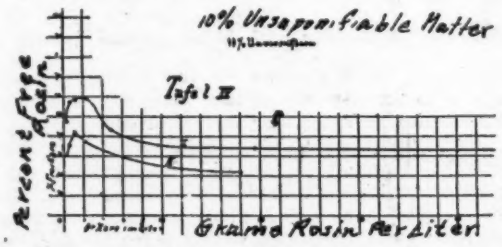

Fig. 3

Dissociation Curves. Sodium Resinate and 20% Unsaponifiable Matter in Distilled Water. (I. After 6 hours. II. After 36 hours. III. Curve without saponifiable matter.)

again after 36 hours. Quite considerable differences were thus noted. The results are plotted in Fig. 3. From this figure it is easily seen that the dissociation is actually repressed and that even after a period of 36 hours, it still changes. The presence of unsaponifiable matter in the rosin soap has accordingly a retarding effect on the dissociation. This observation brings into the spotlight another consideration which is of moment, namely the element of time.

In the second series of experiments (the series with factory

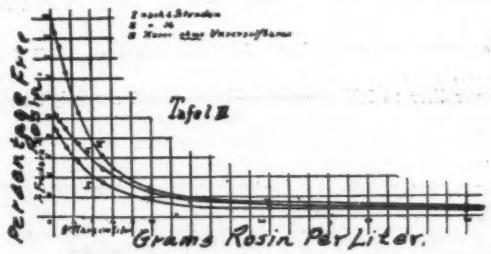

Fig. 4

Dissociation Curves. (I.) Sodium Resinate, Free Rosin (25%) in Distilled Water. (II.) Sodium Resinate, Free Rosin (25%) and Unsaponifiable Matter in Distilled Water.

water) the solutions were tested after they had remained standing for about 8 to 12 hours. The second series of tests, in which both the unsaponifiable matter and the factory water were active factors in affecting the degree of dissociation, presented still greater difficulties than what were experienced in the first series of tests, due to emulsification by shaking, but the results led to no other conclusions than the first.

The appearance of the different rosin milks of varied concentrations was as follows:

40 grams per liter, quite clear reddish brown color.
20 grams per liter, light reddish brown.
10 grams per liter, yellowish color; opalescent.
5 grams per liter, very strong dissociation; opalescent milk.
2.5 grams per liter, slightly dissociated.
1.25 grams per liter, strong precipitation (partly on the surface and part of the precipitate at the bottom).
0.625 grams per liter, strong precipitation.

The precipitation took place after several minutes, while in the case of the sample which did not contain any unsaponifiable matter, the precipitation required more time for its completion. The un-

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* Wochenblatt fuer Papierfabrikation, 1922, 3935-8; 1923, 25-7, 243-5, 313-4.

saponifiable matter consequently exerts a precipitating action of lesser intensity. These results really do not possess any great technical importance due to the fact that at the present time only sizes, which are free from free rosin, are being considered.

Experiments with 25 Per Cent Free Rosin

The same experiments were then carried out with a rosin size, containing 25 percent of the total rosin content as free rosin. When pure, distilled water was used, results were obtained which are given in the form of a curve in Fig. 4, curve 1. From this curve it is evident that, when free rosin is present, no considerable dissociation takes place on dilution of the solution. When the concentration of the rosin size is about 2.5 grams per liter, the dissociation to be sure increases rapidly, but it falls again directly afterwards. The last-named decrease in the dissociation is perhaps due to the free rosin content in the size in the condition of extreme dilution. The fact that we do not obtain in this case the steep sloped curve, that was obtained in the former case, may be explained by the aid of the laws of mass action. The emulsification was very fine and complete, in contradistinction to that of the rosin milk in which there was unsaponifiable matter present. We will speak of this shortly. It is natural that in this case the concentrations of size from 40 grams per liter down are strongly milky and become somewhat opalescent at the most extreme dilutions. This is due very likely to the free rosin which is present and which is only slightly dissociated.

The rosin milk, which contains an addition of 10 percent saponifiable matter, possesses entirely different properties. In particular the solution takes place with difficulty only. All concentrations of solutions from 40 grams per liter to 1.25 gram per liter appear to be coarsely emulsified; when the concentration was diluted down to 0.6 and 0.3 gram per liter, small globules could be seen floating around by the naked eye. However, these globules were in the state of complete suspension. After a period of from eight to ten hours, all the solutions, whose concentrations varied from 40 grams per liter to 1.25 gram per liter, showed a precipitate, which decreased in size as the dilution of the solution increased. There

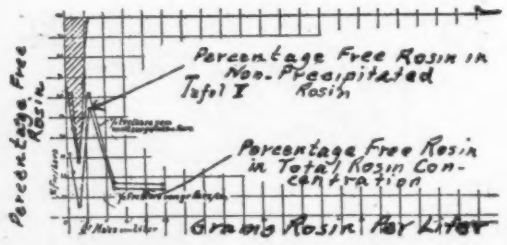
Percentage Free Rosin
Percentage Free Rosin in Non-Precipitated Rosin
Tafel I
Percentage Free Rosin in Total Rosin Concentration
Grams Rosin Per Liter

Fig. 5

Dissociation Curves. Sodium Resinate, Free Rosin (25%) in Raw Water.

was no flocculation as what took place when mineral salts were present in the solution, which was made with factory water. It has not been exactly determined whether or not it is possible to remove all the dissociated free rosin and unsaponifiable matter. In spite of this it can be help that a great regree of dissociation takes place and is connected with the presence of unsaponifiable matter; in contradistinction with the former case this is repressed. The coarse emulsification gives the false appearance of a high degree of dissociation.

Further Complicated Cases

There now remain just two more difficult and complicated cases, namely that of sodium resinate, free rosin and factory water, and sodium resinate, free rosin, unsaponifiable matter and factory water. Precipitation naturally ensues due to the use of factory water. The emulsions have nothing striking to characterize them by. The most complete emulsion seems to have been obtained in the case of the solution, whose concentration was 2.5 grams per liter. The hydration point seems to occur again in 1.25 gram per liter solution. As we can see from the curves in Fig. 5, the hydration is most complete at this concentration, and then, as the latter decreases, it decreases as well. In contradistinction to pure resinate of soda, in which case precipitation takes place even as soon as the concentration is reduced to 10 grams per liter, in this case flocculation occurs suddenly, when the concentration is 1.25 grams per liter. The assumption, that resinate of lime forms with the resinic acid that is combined with the metal sodium, and not, as is generally held in the literature, between the lime and the free rosin, accordingly now appears to be quite probable. What then is the reason for the considerable increase in the degree of dissociation

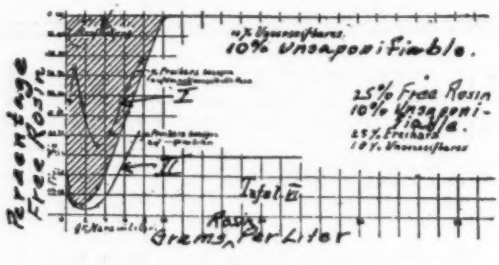

Fig. 6

Dissociation Curves. Sodium Resinate, Free Rosin, Unsaponifiable Matter in Raw Water. (I. Percentage free rosin in non-precipitated rosin. II. Percentage free rosin calculated in grams per liter).

after the strong precipitation that takes place at concentration of 1.25 gram per liter?

It is probable that this phenomenon is connected with the rapid preparation of rosin size, and it appears, consequently, that a time factor enters into this consideration as well. The flocculation carries along with it, it may be safely held, much or about all of the free rosin, so that only sodium resinate is found in the soap; this con not split up quickly. Nevertheless there may still be other circumstances which will serve to clear up the explanation of this phenomenon. The degree of dissociation increases and decreases correspondingly. The degree of dissociation was seen to be at its height at a concentration of 2.5 grams per liter; it then falls until the concentration reaches 5 grams per liter and seems to remain constant at that point.

Behavior of Solution with Unsaponifiable Content

The curves in Fig. 6 represent the very interesting conditions that arise when the rosin size contains unsaponifiable matter. A perfect suspension, in which the particles are quite coarse, is obtained right at the start, and is retained through all the different concentrations In the rosin size, whose concentration was 1.25 gram per liter, precipitation took place after several hours. Almost complete precipitation took place within a period of 12 hours in the rosin size whose concentration was 2.5 grams per liter. While in the case of the 1.25 gram per liter solution a part of the precipitation soon sank to the bottom and a part floated on the surface of the size; in the case of the 2.5 gram per liter solution, even when the size solution was shaken up thoroughly, the precipitate was maintained in almost complete suspension.

The 5.0 gram per liter solution had the appearance of a very perfect, clearly visible and coarsely grained emulsion. The thick globules were maintained in perfect suspension. The solutions were filtered again and the free rosin and the total rosin were determined in each sample again. The curve, showing the precipitation, which is seen in Fig. 6, is particularly interesting.

The hydration point is moved from 1.25 gram per liter to 2.5 grams per liter; consequently it lies at a higher point than in the cases noted up to this point, that is at 2.5. We learned that there was no precipitation in the case of the solutions whose concentration was 5 grams per liter; however such solutions were very coarse suspensions. The dissociation, if it is permissible to call such coarse suspensions by this name, that is the amount of material in the state of dissociation and the proportion of combined rosin, must there lie between 90 and 100 per cent.

Comparison of Precipitation and Dissociation Curves

The degree of dissociation varies very much in the same manner as the precipitation. Because of the very strong emulsions which result when the solutions are shaken up, it was impossible to determine the degree of the dissociation in concentrations varying from 5 to 40 grams of rosin per liter. However, it appeared to be small and to increase somewhat at a concentration of 5 grams per liter, reaching 30 percent, and then to decrease with the precipitation and then again to increase with the same to a maximum. The curves, which show the content of free rosin, based on the non-precipitated rosin, are also given in Fig. 6.

A peculiar phenomenon was observed in this experiment, namely, that the precipitation of the rosin was induced in the rosin milk, whose concentration was 2.5 grams per liter, only after the size had remained standing for about 12 hours and only after slight shaking. This fact is to be explained in the following manner. It must be due to the repressing effect of the unsaponifiable manner on the dissociation, in the same manner as the salts on the other hand promote precipitation in the solutions. However, the salts must first combine with the sodium resinate in the manner of a double decomposition, until precipitation can take place. We have observed almost at every time the experiment was made that precipitation took place only after a period of a few minutes. In this case, under the condition of the different influences exerted by the free rosin, the unsaponifiable matter and the factory water, the process requires more time until equilibrium is established in the system. After that has been established the precipitation can take place due to changes in the concentration.

Conclusions

The conclusions that may be derived from this series of experiments are as follows: It was seen that in every case the unsaponifiable matter in the rosin size brought about a more or less finely divided emulsion. According to the theory of free rosin sizing, it must be concluded that the presence of unsaponifiable matter in the rosin size has a bad effect on the sizing process. It was found that the influence of the factory water was particularly potent. This supposition must have been substantiated therefore by a practical test, which was carried out in the first place with a sizing mass containing 10 per cent of unsaponifiable matter, and then with one containing 50 per cent of unsaponifiable matter. The sizing quality produced was 3 per cent, that is, 3 grams of rosin were found on every 100 grams of stock. Neither the first nor the second experiment showed that the presence of the unsaponifiable matter in the rosin size had any but the slightest unfavorable influence on the sizing process. It must therefore be concluded that a rosin size, which contains 50 per cent unsaponifiable matter, exerts only a small influence on the sizing process, indeed if any difference at all occurs. If these laboratory tests have shown that the presence of unsaponifiable matter in the rosin size has no effect on the sizing process, then this conclusion must be substantiated by a practical test, which for safety sake must be carried out under conditions which are as similar as possible to those that exist in actual practice. Then only can a definite answer be made to the problem.

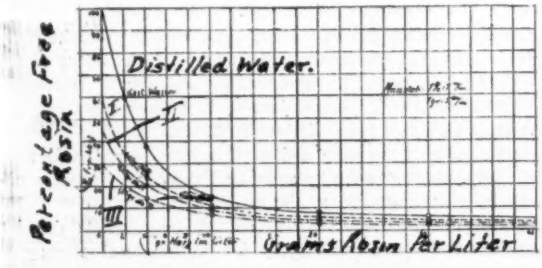

FIG. 7

Dissociation Curves. Sodium Resinate in Distilled Water. In the presence of varying concentrations of $NaCO_3$ per liter. Curve I. $NaCO_3$ 0.05 grams per liter. Curve II. $NaCO_3$ 0.25 grams per liter. Curve III. $NaCO_3$ 1.25 grams per liter).

How can this conclusion however be explained? It must be assumed that the size of the particles of the rosin milk, containing unsaponifiable matter, is still always small enough for the purposes of sizing. The unsaponifiable matter has a water-repellent action as well. It cannot be mixed with water in any way at all. The result is explained in this manner. However, after examination, we have to consider and unwillingly at that the following question: Why does the paper man buy the rosin with the maximum saponification number? It has been held that this determination of the quality of the rosin is of no value. Hofmann, Klemm and others speak about a resin number, which is related to the saponification number. However, the investigations which have been described above cannot lead to such a conclusion, but they indicate that the color of the rosin is of importance in determining its quality, and accordingly it must form a part of rosin analysis. According to various investigators and practical paper men the sizing quality of a particular rosin depends on the color of the same, and it is generally held that the darker the rosin the better the sizing quality obtained in the finished paper, when all other conditions are maintained constant. However the character of the paper that it is desired to manufacture, its color, that is its whiteness, predetermines the color of the rosin that is to be used in sizing it. The value of the acid number of the rosin is just for the determination of the amount of soda which is required for the saponification of the rosin.

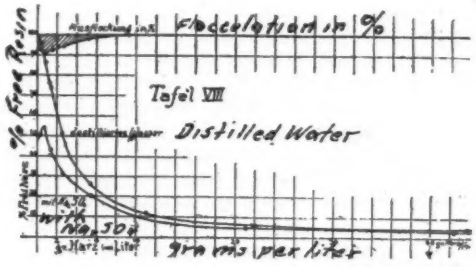

FIG. 8

Dissociation Curves. Sodium Resinate in Distilled Water. In presence of 0.1 gram of Na_2SO_4 per liter.

Explanation of Various Phenomena

In the course of these investigations several phenomena were encountered, for example the flocculation of the rosin and the retardation of the dissociation, which requires explanation. It will be an interesting investigation to determine which salts have the greatest influence on the flocculation action and which have more effect on the dissociation. To this end an investigation was made to determine the effect of different salts of the alkalies and the alkaline earths on sodium resinate. The chlorides, sulphates, car-

bonates and the bicarbonates are the salts which are to be considered before any others in this connection.

In this investigation we started with the curves, which were obtained from the data collected on the behavior of a solution of resinate of soda in water. The following varying percentages of sodium chloride were added to the distilled water, viz., 0.05, 0.25 and 1.25 grams per liter, and then the degree of dissociation in the solutions was determined. In Fig. 7 the results are shown graphically. The broken line curves indicate the dissociation in the different solutions; for comparative purposes a full line curve is also drawn to indicate the dissociation that take place when pure distilled water is employed. From this it can be seen that three curves have a smooth course, but that the curvature is considerably reduced as the amount of salt in the solution increases. For example in the case of the solution, containing 1.25 grams per liter, the degree of dissociation is reduced from 51 per cent in the case of pure distilled water to 19.5 per cent for a concentration of 2.5 grams per liter. From a comparison of the three curves it may be seen that the increase in the dissociation takes place later, the more salt there is in the water. If it is considered that the curves are perfectly regular, then it can be seen that as the salt content of the rosin soap solution increases the point at which each curve cuts the ordinate axis becomes lower and lower. This means that the degree of dissociation reaches its maximum sooner. Flocculation took place first when the solution contained 1.25 grams of sodium chloride per liter. The point by which hydration takes place in the solution containing salt is consequently considerably earlier. Unfortunately it was found impossible to make any quantitative determinations of the flocculation phenomenon.

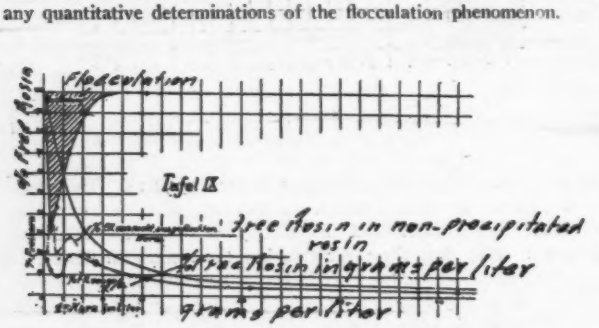

FIG. 9

Dissociation Curves. Sodium Resinate in Distilled Water. In presence of 0.62 gram $CaSO_4$ per liter

A very interesting curve was obtained when using a solution containing an alkaline sulphate and under the concentration of 0.10 gram per liter. This curve is seen in Fig. 8. In this case both repression of the dissociation and flocculation of the rosin were observed to take place. Right from the very beginning the dissociation is again a little less than in the case of distilled water. The course of this curve up to 6 to 10 grams of rosin per liter runs almost parallel to that of the distilled water curve. From that point down, that is as the concentration of the rosin solution decreases, the two curves separate sharply and attains a maximum at about 0.8 grams per liter with a 14 per cent free rosin content, and thereafter the sulphate curve flattens out still more. The flocculation begins at 8 grams per liter and attains its maximum with about ten per cent free rosin content at 0.8 gram per liter, and then its intensity is decreased again.

The final investigation was made with an alkaline earth salt, which has a still more injurious effect on the sizing process. For simplicity's sake the sulphate salt of calcium was used. (See Fig. 9.) In this case the dissociation was repressed more strongly and the flocculation was considerably increased in intensity. The maximum free rosin content is 20 per cent. It first increases slightly until it reaches about 20 per cent, then it falls to 10 per cent and rises once more. The flocculation process proceeds in the same manner as the curve of the dissociation. At a concentration of 5 grams per liter, the floccuation is about 4 per cent, at 2.5 grams per liter it was 30 per cent and at a concentration of 0.6 gram per liter it was 70 per cent. Then as the concentration decreased to 0.3 gram per liter, the degree of flocculation was reduced once again to 20 per cent. This ascending branch of the dissociation curve can be explained only by the fact that flocculation takes place, as has been mentioned formerly, and in this manner the concentration is decreased. If the various solutions had been prepared more slowly, which however does not give a correct picture of the matter, consequently in each solution there would have been first a condition of rest induced in the system.

From these investigations it was clearly seen that the presence of salts in the water has a great influence on the composition of the rosin size. These salts are the cause of hardness in water. This fact is emphasized still more by the tests that were made with the free rosin size, in which case the flocculation and naturally the repression of the dissociation play still more important roles. A larger number of the most variable circumstances must be combined in experimental tests, in order to obtain an entirely clear picture of the matter. But it is not conclusive that a salt has any particular influence on another and perhaps negate the effect of the same. The investigations that have been made heretofore have however shown that it is possible to institute a very valuable piece of work on this most difficult problem.

From the discussions that have been carefully described above, the following important fact can however be concluded. It was seen that the salts in the factory water brought about precipitation or flocculation for the first time when the concentration of the rosin size had been reduced to 10 grams of rosin per liter. Are we not then entirely justified in making the assumption that in the first place a soft water is more suitable for the sizing process, and in the second place that very highly concentrated solutions of the rosin are able to circumvent the disturbing influence of hard factory water? This conclusion was substantiated by a practical sizing test.

According to the author's knowledge this fact was proven some time ago by W. Schacht, who carried out a number of practicle sizing experiments. The conclusion derived from these tests was also substantiated by laboratory experiments.

Dexter Sulphite Co. to Appeal Hearst Decision

[FROM OUR REGULAR CORRESPONDENT]

WATERTOWN, N. Y., July 10, 1923.—The Dexter Sulphite Pulp and Paper Company will take steps to appeal to the court of appeals from the decision of the appellate division fourth department reversing the decision of Justice Jerome L. Cheney providing for a consolidation of the two suits with William Randolph Hearst involving the sale of the pulp and paper mill property at Dexter. This was indicated last week by attorney Frances E. Cullen, counsel for the sulphite company, as the logical course.

Because of the fact that the decision of the appellate decision was unanimous it will be necessacry for the sulphite company to obtain its consent or that of the court of appeals in order to carry the case up and application for that consent will probably be made when the appellate division re-opens in the fall.

At the present time former Governor Nathan L. Miller of counsel for the sulphite company is on the seas on his way for Europe to be gone for several weeks and on July 7 Judge Samuel Seabury, also of counsel for the sulphite company, sailed for Europe to be gone for several weeks. It is not likely that much will be done in the way of preparation of an application for consent to appeal until they return. If the desired consent is not given then the two suits will have to be tried separately as ordered by the appellate division in reversing the decision of Justice Cheney, and a hard legal fight is promised to determine which of the suits will be tried first.

WEIGHING WOOD IN PULP MANUFACTURE*

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For several years it has been the habit of the Port Huron mill to pile wood neatly in piles 8 ft. high. As the majority of wood purchased is in 4-ft. lengths, it is easy to ascertain the number of standard cords used in a given run. At the end of each week the consumption of the week is accurately determined. In this paper the word "cord" refers to a standard cord of 128 cu. ft.

The wood is usually drum-barked, and subsequently knife-barked to insure a high grade of cleanliness. In using the term "barking-loss," I refer to the total loss of wood by weight between the weight of the rough wood and the weight of the moist chips.

The chip bins are individual bins, holding just enough chips to charge one digester, and contain substantially 4,100 cu. ft. The chip bins are always loaded to a mark, so that a digester always receives the same volume of chips. The digesters are 10-ton Mitscherlich digesters.

The outrun of each day is run over driers and the air-dry weight ascertained. There is a clean-up at the end of each week, so that the air-dry pulp manufactured each week is accurately determined.

It has been noticeable for a number of years that the weight of dry pulp produced from a given quantity of wood varied over a considerable range, notwithstanding that the wood used was quite constant, as nearly as could be determined by physical inspection. Not only did the weight per digester fluctuate greatly, but the output per week fluctuated, and the output per cord of wood fluctuated.

It has also been noticeable that, during certain portions of the year, the output was better than during other portions of the year, the lowest yields being experienced during the winter months.

Cause of Unusual Variations

As there was no explanation of these unusual variations, the management decided to endeavor to ascertain the cause of these variations. In order to do this a platform scale was installed and as the logs are drawn to the mill by wagons it is a simple matter to get a very fair weight of the rough wood consumed. A chip weigher was also installed and the chips were automatically weighed as they were introduced into the digesters.

In order to ascertain the amount of water in the wood, rather extensive experiments were made on moisture determinations. These investigations resulted in the adoption of the kerosene distillation method for determining the moisture. The sawdust from the rotary screen was selected as the most representative part of the wood for reliably ascertaining the moisture. It was soon discovered that the kerosene distillation showed a larger amount of moisture in the wood than by drying the chips, and was considered more accurate.

When the proper deduction was made for the water in the wood, from the weight of the wet chips, the amount of pulp-making material introduced into the digester was quite accurately ascertained. With these data in hand, the losses between the wood pile and the air-dry pulp could be equitably distributed between the log room and the digester department.

It was soon ascertained that on comparing weeks where the barking losses were substantially the same, different yields of pulp resulted. At first this variation was regarded as due to fluctuation in the quality of the wood, but further investigation showed that the make-up of the acid had a large influence in these results. When I use the term "yield," I refer to the percentage relationship between the air-dry pulp, and the bone-dry chips producing it.

Furthermore, it was apparent that the analyses of the acids, as generally practiced, gave only partial information as to the digesting quality of the acids. This led to an extended investigation of the sulphite acid, and as the technical make-up of the acid is beyond the scope of this paper, only the results obtained will be mentioned.

Variation in Rough Wood

Referring now to the rough wood delivered to the mill, it was found that the weight of a cord of rough wood varied from 3,065 to 5,570 lb., the former being wood three or four years old, containing 18 to 20 per cent moisture, the latter being water-soaked wood, running from 45 to 50 per cent water. The former showed signs of decay, while the latter was sound wood. It should be understood that these figures refer to spruce wood, with a sprinkling of balsam.

It will probably be sufficient for the present to state that sound Canadian spruce, heavily watered, will frequently run over 5,000 lb. to the cord. New cut wood, running from 20 to 28 per cent moisture, weighs about 4,500 lb. to the cord, while old wood, with only incipient decay, but quite dry, running from 20 to 25 per cent moisture, runs from 3,200 to 3.700 lb. to the cord. However, the general run, over a year, of good sound Canadian spruce, will average quite close to 4,000 lb., and the moisture content will average around 30 per cent.

Coming now to the barking loss, that is the loss from the rough wood to the wet chips, a wide fluctuation is experienced, when knife-barkers are utilized. Carefully done drum-barking, either wet or dry, will run from 12 to 15 per cent. Woods hand-barked with draw knives, and trimmed with axes, will run between 16 and 17 per cent. When the wood is knife-barked, either from the drum-barker or from the rough, and carefully cleaned, the total loss varies anywhere from 20 to 38 per cent.

It soon became apparent that the number of logs making up a cord was an important factor in the barking loss. To ascertain this, automatic counters were installed on the conveyors. Here, again, a wide fluctuation was noticed. The number of logs from a cord varied from 90 to 170. The average run of Canadian spruce, as it comes to this mill, will be from 130 to 140 logs per cord, with 4-ft. wood.

With these figures before the management, steps were taken, first to see what could be done toward cutting down the barking loss, which with small wood usually ran above 30 per cent. By regulating machinery, and organizing the help that operated the machines, it was found that the barking loss could usually be maintained at from 20 to 25 per cent.

It is apparent that, in those mills using drum-barkers alone, the main losses are occasioned in the digesting of the wood, as, unless the wood is unusually bad, there is no such wide fluctuation noticeable with drum-barkers.

We have not endeavored to study the losses between the cleaned log and the chips, as they are a minor quantity.

Fluctuation in Weight of Wet Chips

When these surprising figures were brought forth, the yield of pulp from the chips was given exhaustive attention. It was found that a digester of wet chips, no matter how carefully measured, would fluctuate from a minimum of 46,000 to a maximum of 70,000 lb., and that a digester of bone-dry chips would fluctuate from 34,000 to 41,000 lb. It was also noticed that the wet weight of

*Presented before Woodlands Section, American Paper and Pulp Association, at the annual meeting April 11, 1923, New York.

wood was only partially affected by the amount of moisture. In many cases, new cut wood would give a bone-dry weight higher than an older wood, running high in moisture. Nor was it always the case that digesters, containing the greater amount of bone-dry wood, would yield the greater amount of air-dry pulp. As no specific gravity determinations were made, it is impossible to state whether the yield is proportional to the specific gravity or not.

The results, however, indicated rather strongly that water-soaked wood yields better than dry wood, for the same wood, and the quantity of the pulp is excellent.

In the early stages of these investigations, determinations showed that the yield of screened pulp from the bone-dry chips was about 45 per cent, while the total pulp was between 47 and 48 per cent. After the investigation of the acid had produced methods of modifying the processes, the yield of screened pulp increased to 52 to 56 per cent, while the total pulp increased from 55 to 59 per cent. The average of screened pulp for a considerable period, has now been around 53 per cent, while the total pulp is around 56 per cent.

If these figures are translated into money values, it would seem that the results obtained fully justified the expense of weighing. The old saying is, "What you don't know never troubles you," and it is only when a large loss stares you in the face that herculean efforts are put forth to prevent them.

If a mill using 18,000 cords of wood can save 10 per cent on its barking loss, a saving of approximately $22,000 is possible. If the mill normally produces 10,000 tons and if the increase of 10 per cent of pulp is made from the same wood, this saving is practically all profit, as the expense of producing this increased quantity is a very small amount over the normal expense. In such a case the saving would be 1,000 tons of pulp in a year. If the pulp is taken at $60, that would mean $60,000. If a high-grade pulp is manufactured that would mean over $80,000.

For fear that a misunderstanding might arise, it should be stated that the resultant pulp was much purer, of higher color and quality than was produced with the low yields. The pulp ran from 94 to 96 per cent cellulose, with only about 2 per cent lignin, and this Mitscherlich pulp has been bleached with a consumption of from 12 to 16 per cent.

Checking the Results

In order to check these results, small pot experiments were made with both open and closed pots, which were cooked inside the large digesters, and the small, accurately weighed determinations checked those on a large scale, so it is with considerable confidence that these figures are presented.

It is recognized that in weighing large quantities of wood errors are bound to creep in, due to fluctuation in tare and personal errors. It is also recognized that in weighing chips automatically, in a continuous stream errors will arise, but the law of averages considerably decreases these errors, and where the weights are taken at all stages of manufacture, weights at one stage of the processing which are out of line, are made apparent by the other weights taken at the different stages.

It should not be amiss to say a few words as to the efficacy of intermittent tests as a basis for costing. It is known that the efficiency of manufacturing processes varies in the best of regulated factories, efficiency varying from a maximum to a minimum. The divergence between the maximum and the minimum, however, is considerably decreased where costs are obtained every day. The knowledge of the weakening in any step of manufacturing immediately causes corrective steps to be applied. In the case of intermittent tests, ignorance promotes confidence, with the result that considerable losses occur, without the knowledge of the management. A figure is obtained by a test or several tests. This is accepted as reliable. The manufacturing proceeds on this basis. Conditions change, and processes gradually become more inefficient, as no data are available to check results.

An Illustration in Modern Power Plant

An illustration of this is in the modern power plant. Before the days of automatic coal weighers, flow meters, and the modern instruments of the power plant were introduced, the generation of power, even with cheap coal, was much more expensive than it is now. Any one visiting the modern central station is immediately struck with the money invested in apparatus to determine daily costs. I recently asked the general manager of a very large power company if it were not a fair statement that, with these power stations today as they are, if he discarded the apparatus that gives this daily information would not the cost of power increase at least 20 per cent. He replied that he thought that was a very fair statement. In fact, he thought that the power cost might even increase more.

Having knowledge of these facts from actual experience, the management of the Port Huron mill determined to get weekly records, which would determine inefficiency with a fair degree of accuracy. Mr. Kiefer, the president of the concern, was determined to weigh his chips. When this feat was accomplished and the result obtained he regarded it as a mile-stone in the progress of the industry.

Wishing to avoid pioneering, a survey of the weighers on the market was made and it was a collective judgment that no weigher on the market was particularly adaptable to this purpose, and no guarantees could be obtained. The chief difficulty met was due to the fact that the chips were delivered to the weigher in varying quantities and the lack of uniformity in the flow of chips was most marked. The weigher to be successful must be entirely automatic, must require little attention, and of necessity is placed at a point where it would receive little attention. It must work in moisture and dust and must have as few working parts as possible and preferably must be driven by gravity acting on the chips.

For this reason we decided to build our own weigher, which was done. While undoubtedly improvements will be made as more machines are built, the first machine we built was successful and was used under very trying conditions, due to the fact that the chips were delivered to the weigher from a vertical elevator, receiving its supply from a pit. The chip stream varied from almost nothing to a deluge. This, of course, made the cut-off arrangement very difficult to accomplish. Notwithstanding these handicaps, it was found that when the stream of chips was controlled within any reasonable limits, an accuracy could be obtained within about 2 per cent. Had the weigher been built larger undoubtedly the error could be kept below 1 per cent.

The principle involved is simply alternate pockets, fed by a shifting pan, which is worked by gravity, which likewise opens and closes the dumping doors.

"Passing the Buck"

One result from using instruments for indicating daily costs is the prevention of the great interdepartment American game know as "passing the buck." When you go into a combined pulp and paper mill, if anything goes wrong with the paper, it is always the pulp. When the pulp is chased down through its several departments, the buck usually lands on the wood pile, and unless the yard foreman can chase it back to the forest and nature, it will have to remain there.

Now, while it is a fact that the quality of wood in making pulp is an important item, outside of the yield of pulp, the difference between pulps made from different qualities of wood, does not vary as widely as the woods from which they are made. I have had a very striking illustration of this. In two mills making the same ultimate product, one had very much better wood than the other. The processes were strikingly similar. When the processing was properly adjusted in the mill having the poorer wood, the differences in the quality of the product practically disappeared. Of course, this does not apply in comparing different species of wood.

Returning, therefore, to the tendency of one department to throw the blame on the other, experience has shown that it is very difficult to properly place the responsibility, without the proper apparatus for giving data. This is particularly true as regards yield rather than quality. This point is further made important when dealing with poor wood. What wood to process and what wood not to process is a matter of delicate judgment and experience. With the proper apparatus it is not a matter of judgment and experience at all. It is a matter of cold fact.

I could weary you with citations from other industries, which formerly ran on the judgment of practical men, but which now run on actual data obtained by instruments or apparatus. If this is true in other industries why is it not true in the paper industry? And if it is true for the paper industry why not go as far as the other industries? Why should we not weigh the wood into the mill, determine how much moisture it carries, determine the loss in weight between the logs and chips, determine the loss in weight between the pulp and paper, instead of depending upon the aggregate of figures obtained from the general ledger? Weighing the chips has shown that wide divergence exists between the weights of digesters, both in the amount of chips required to fill the digesters and the weight of the pulp obtained.

Many mills have shown considerable saving in recovering pulp from white water. As an illustration, if the industry was as well developed as some of the other industries, and it was known that a 6 per cent loss between pulp and paper was good practice, and you installed apparatus that showed you were losing 10 per cent you would make strenuous effort to improve your practice. Likewise, if you were buying wood, and processing it so that you were getting 40 per cent of air-dry pulp from bone-dry chips, and you knew that another mill was getting 56 per cent, you would do something in your wood department or in your mill that would cut down the difference, and you would be willing to spend money to do it, because you would get handsome returns on your investment.

Sharper Competition

Why not, therefore, borrow a lesson from other industries that have progressed further? You are emerging from a period of plentiful raw material and a market that was fairly easy picking to a period of scant raw material and facing a market where foreign invasion tends to sharpen competition.

It may seem that a figure of 56 to 58 per cent yield of air-dry pulp from bone-dry chips is chimerical. I, therefore, wish to say a word or two about cellulose. It is not until within the last five years that the chemist had any sort of accurate idea as to the chemical identity of cellulose. Thanks to recent investigation, we are getting near to the solution, but there is yet much to be known. It is sufficient here to say, however, that cellulose, as reported to you by your chemist, is really an arbitrary entity, and in common language is nothing more than a residue left after a certain treatment devised by two eminent English chemists, Cross and Bevan. Other methods have been devised, but are not as satisfactory. There is no proof that this residue represents all the cellulose in the wood, and science may yet prove that Cross and Bevan's residue is low.

This is true of most of the other determinations usually made on pulp, but the point I wish to bring out here is that sound spruce wood will run from 56 to 61 per cent cellulose by this method. If you are making a very high grade pulp, it is probable that it will not contain over 95 per cent cellulose, and when you consider that your air-dry pulp is figured on 10 per cent of water, you can count about 85 per cent of cellulose in air-dry pulp for the best of it, and many pulps contain only about 80 per cent.

If, therefore, you are processing a wood of 56 per cent cellulose, you have a right to expect something over 65 per cent air-dry pulp. If you were obtaining 58 per cent air-dry pulp, your processing is a little under 90 per cent efficient. A chemical process which is approaching commercial efficiency should be 90 per cent efficient without boasting the impossible.

In this regard I want to quote a little card, which I removed from the office of one of my friends, reading: "It is generally the man who doesn't know any better who does the thing that can't be done—You see, the blame fool doesn't know it can't be done, so he goes ahead and does it."

The presentation of these figures, it is hoped, will lead to serious reflection on the part of mill owners on the possibility of saving.

Summarizing the Advantages

To briefly summarize, the advantages of weighing wood in pulp manufacture are:

First—A good indication of the quality of wood purchased.

Second—The location of the chief loss in manufacture, as between departments.

Third—The stimulating of research and efficiency of management to save losses.

When wood consumption is simply taken on the amount of wood it takes to fill a digester in chip form, and the pulp slushed to the paper mill connected with the pulp mill, and the production estimated from the paper produced, a hopeless problem confronts the management that is seeking to cut down its losses.

Plan to Solve Low Water Problem

[FROM OUR REGULAR CORRESPONDENT.]

WATERTOWN, N. Y., July 9, 1923.—A big steam auxiliary plant to be erected at Deferiet is now being planned by the officers of the Northern New York Utilities, Inc. When the plans and specifications are completed they will be laid before the executive board for formal authorization. It is expected the plant will be built this year.

It is proposed to make use of boilers now owned at Deferiet and erect a plant that will cost about $175,000, it was said today by an officer of the company. A total of 7,500 horse power would be developed. It is considered that the expenditure will be very cheap insurance against a recurrance of the low water difficulties of the past year when the New York Air Brake steam plant was thrown into the system to keep the St. Regis Paper Company plant running.

Despite the progress being made by the Utilities in the way of hydraulic power development it is admitted that the demand is growing faster. Thus it appears that there is at least a slight hazard in the way of the widely scattered plants not being able to meet all demands at a time of low water. It is recognized that river regulation by the Board of the Black River Regulating District will bring relief. It is a few years distant before all rivers will be regulated, and then a low water emergency would not be impossible.

It is understood that the New York Air Brake Company steam plant cost a rental of $7,000 a month for three months, and was altered for the purpose and then returned to its former condition. It is seen that at this rate the projected plant at Deferiet would more than pay for itself in two years, if its use were required to meet a low water period.

To Distribute Brazil Statistics

WASHINGTON, D. C., July 11, 1923.—The Paper Division of the Department of Commerce now has available for free distribution a trade information bulletin relating to the market for paper and paper products in Brazil, the first of a series to be published dealing with the paper market in various countries and geographical divisions.

The information was obtained from a special questionnaire forwarded to the foreign representatives of the Bureau and consuls some months ago. The bulletin may be secured upon request either by commnicating directly with the Bureau in Washington or from the district and co-operative offices.

INDEX OF TECHNICAL SECTION, VOLUME 76 PAPER TRADE JOURNAL

PREPARED BY CLARENCE J. WEST, CHAIRMAN, COMMITTEE ON ABSTRACTS AND BIBLIOGRAPHY.

As in the preceding index, the pages in the following index refer to the paging of the Technical Section and have no relation to the paging of the individual numbers of the PAPER TRADE JOURNAL, except in the case of the Convention Number (No. 15, for April 12). By mistake, the technical matter in this number was not paged into the Technical Section; references to this number are designated by the letter C. As before, entries referring to abstracts are designated by A, those to patents by P. Pages with the letter C or with no letter refer to original articles published in the Technical Section. Author entries to these original articles are in capitals.

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Installs New Style Stoker

BIRON, Wis., July 9, 1923.—The Consolidated Water Power and Paper Company, has purchased a new model Westinghouse underfeed stoker including the hollow forced dump grates which are active fuel burning surfaces, large coal hopper, non-clinkering extension sidewall tuyeres and steam dumping mechanism. Very flexible rate of coal feed is maintained by a 4-speed gear transmission which is flange connected to a 2-speed induction motor and transmits power to the line shafting through a Diamond chain. The three phase induction motor driving the stoker has primary and secondary control giving 50 per cent speed reduction. The fan motor is also three phase and equipped with control panel and resistance. This plant uses crushed Youghiogheny coal under the new 500 horse power Edgemoor boiler.

Good Demand for Swedish Pulp

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., July 3, 1923.—The pulp market, according to Gothenburg export interests, has been a satisfactory one during the quarter, according to a report received here by the Department of Commerce. The demand for kraft and sulphite has been good, particularly in America and England, although inquiries from the Continent have decreased somewhat on account of the difficulty experienced by the French and Belgian mills in obtaining fuel, and it is estimated that the producers of mechanical pulp in this district have already sold about 60 per cent of the expected production of moist pulp for this year. On account of the low prices offered, Swedish pulp mills have been inclined to await developments rather than to force sales.

Section of the

COST ASSOCIATION OF THE PAPER INDUSTRY

Affiliated with

THE AMERICAN PAPER AND PULP ASSOCIATION

Conducted by THOS. J. BURKE, C.A., Sec-Treas

STANDARD COSTS—HOW TO ESTABLISH AND APPLY THEM*

In its broad sense an accounting system may be regarded as a machine for the production of information pertaining to the cost and progress of manufacturing operations. The value of such a system is determined by the extent and character of the information obtained, the speed with which such data is produced and the cost of compilation.

Objects of a System

A system of accounting should provide the following information:

1—Monthly statements of profit and loss by classes of product.
2—Complete information relative to operating efficiencies.
3—Cost data so arranged that a current cost of various articles can be obtained quickly.
4—Information in regard to the progress of work through the factory.

In order to obtain these results a system should be designed as to operate at moderate clerical expense.

The generally accepted plan, under which detail costs are compiled for every operation and every repetition of an operation, falls short of obtaining the above results. The purpose of a detailed cost plan is to obtain information relative to the actual cost of manufacture, but in practice, such data are of very little value as the information most often required is the costs under current condition and not past costs. Furthermore, if it is desired to bring such information into such a statement as a monthly profit and loss statement by classes of product, it cannot be done without a great amount of clerical help.

Standards as Units of Measurement

In all of the business activities of today we hear a great deal about the use of standards. In nearly every department of the modern concern some standard or mark is set for which to strive.

These standards may be in the form of a budget, a quota or any of the many terms with which the modern business is familiar. Accountants are rather slow to adjust themselves to this new way of thinking and are rather reluctant to give up our old methods of writing history. If standards are set why should accountants not be interested in designing accounts so that a comparison of actual conditions with the predetermined result will be shown in statements?

Such a system would be based upon the principle that the comparison of periodical costs can be more satisfactorily stated as a comparison with a common unit of measurement, such as a standard cost, than with the cost of a previous period. For example, a better idea of the trend of costs is conveyed by stating that during January the cost of production to standard was 120 per cent, and that during February the cost was 132 per cent, than by stating that during February the cost was 111 per cent of January and that the latter probably 90 per cent of the previous January. There is no means in the latter method of deciding whether the figure of the January previous was high or low, except by a similar comparison when again the comparison is lacking in significance.

In all similar commercial activities a common unit of measurement is used, as for instance, a road contractor would not say that his last job cost $100,000 and it was twice the previous one, but would state that the former cost $1,000 per mile and the latter $2,000. The cost of both jobs are compared with the same standard, namely, the mile.

In designing a cost system the first problem is the establishment of some unit of measurement. There are but few lines of manufacturing which lend themselves to the setting of such a unit of measurement so that all activities can be measured to that unit.

Under the standard cost plan there may be any number of units of measurement. These units are brought together in a cost which is known as standard cost and is used throughout the accounting procedure as the unit of measurement.

Standard costs are established for each article manufactured. Standard costs may or may not closely approximate actual costs at the time of establishment. The aggregate standard costs of all articles passing through the factory during a given period are compared with the actual costs for the same period. This will give a ratio of actual cost to standard cost in total. The application of this ratio to the standard cost of any article will give the current cost of that article.

In a general way the foregoing explains the principle of standard cost but owing to the fact that it rarely happens that all articles are started and finished in the same period, refinements are necessary to obtain a true figure of cost. These refinements do not alter the principle in any way but only serve to more accurately reflect the actual condition.

Setting Standards

Before such a plan as outlined can be placed in operation it is necessary to set standard costs for all articles manufactured. These standard costs are arranged to conform to the manufacturing procedure. The main items are material, material scrap, labor and fac-

*Bulletin published by Nat'l Assn. of Cost Accountants, May, 1923.

tory burden. In our company the standard costs are mainly based upon records which already exist. A standard unit price is set for all material and scrap. The specified amounts of material and scrap for each article are entered in detail on the Standard Cost card and extended at the standard unit cost. These data are very easy to obtain for records are kept in the production department showing the quantity and kind of material to be used for each article.

Standard rates of pay are set for each department which are based upon the average earnings at the time the system was introduced. Standard time is set for each operation which in most cases is based upon detail costs already in the files and where there are none, time studies are made. The standard time is shown on the Standard Cost card for each operation and the total Standard time for each department is extended at the standard rate for that department which gives the standard cost of the direct labor. To this standard labor cost the standard burden rate for each department is applied. By combining these elements of the Standard cost for each article we have set up a complete Standard cost. These costs are arranged and filed by article numbers and in such order so that they can be easily referred to. The standard cost is now used in the accounting, in about the same manner as a price list is used for billing, for setting up the standard cost against the actual production as reports are received.

Pay Roll Distribution

Time tickets are issued for each operator daily showing the following:—Date, man number, department, total time for the day, hourly rate of pay, operation, number of pieces completed and description of article.

These tickets are gathered together daily, checked to the in and out record, and the total time extended at the day rate and the amount credited to the operator.

As soon as this procedure is accomplished the tickets are passed to the Cost Department where reference is made to the standard cost, and the standard time for each operation is posted to the ticket and extended by the quantity completed.

The time tickets are now ready for distribution, which is done by sorting each department's tickets by classes of product, separating the day work from the piece work and tabulating the standard hours, actual hours and actual amounts. These tabulations are done in one operation through the use of a non-listing machine. The amounts are posted to columnar sheets which are provided for showing this information by classes of product in each department.

The standard hours for each department are totaled monthly and extended at the standard rate which gives the standard labor cost of each department. This standard cost and the actual cost are posted in parallel columns to the debit side of the work in process accounts by lines of product and the relation between the two expressed by means of the ratio of the actual cost to the standard.

In most of our plants the time tickets are first tabulated by employees and the relation between the actual and standard time is shown in weekly comparative reports. These reports are passed to the foreman of each department who show keen interest in them and they have been used as a means of determining the worth of operators.

In the case of piece work we have considered our piece work prices as standard which eliminates the necessity of placing the standard time on the tickets.

In some departments where it is not possible to have the operator show the actual work done, such as the the plating department, the production is reported for the department as a whole or in groups, such as a vat in plating or for a gang in the annealing room. These reports are priced at standard cost and treated in the same manner as if distributed to the operator.

If it is desired to ascertain the number of hours of running time of each department in advance, this can be done by figuring the standard time of each production order at the time it is issued and crediting against this the standard time of the work produced. This procedure will give the number of standard hours ahead of each department.

Material

The material accounts are divided into a few main classes arranged according to the general description of the material concerned. Each main class is sub-divided according to each kind of material. Two sets of accounts are maintained, the controlling account which relates to the main class only and is carried at both actual and standard figures. The detail accounts are carried at quantities only. The controlling accounts are carried on the factory ledger and the detail accounts are maintained by the storekeeper. Charges to these accounts are made from the vendors' invoices, which in preparation for recording are priced at the standard cost.

The total of all charges at actual cost are charged to the inventory controlling account for the factory, and the sub-division of the inventory accounts are charged with the actual and standard cost. These two accounts are shown in parallel on the debit side of each account and the relation between the two is shown by dividing the actual cost by the standard. This ratio is used in issuing credits to the accounts, as explained later. The quantities are posted to the detail accounts on the stock cards.

Withdrawals of material are made upon a requisition which is designed to show the following information:

1—Material account number, which number indicates both the control account and the sub-division of the account.
2—Actual quantity issued.
3—Standard cost of actual quantity issued.
4—Standard cost of material in product.
5—Class of product.
6—Production order number.

As the material is issuel by the storekeeper the quantity issued is recorded and the quantity extended to the standard cost of the material. Reference is now made to the standard cost of the article for which the material is issued and the standard cost of the material in the product is posted to the requisition.

Monthly or as often as may be desired the requisitions are sorted by classes of material and credits are made to the controlling account at standard cost, which is adjusted to actual cost by the use of the ratio between actual and standard cost as shown on the debit side of the account. This difference between the actual and standard cost will reflect the variation due to the actual price being more or less than standard. Inasmuch as the quantity of material used in the article may vary it is necessary to provide for showing this condition. In order to do so the requisitions are now sorted by classes of product and a tabulation is made of the standard cost of the material in the product and the standard cost of material issued, the latter being adjusted to actual cost in the same manner as for the credits to the controlling account as previously explained. The actual cost of the material issued and the standard cost of the material in the product are now posted to the debit of the Material Work in Process accounts. The ratio between these two amounts is used as a means for adjusting the standard cost of credits to actual cost. You will note that the difference between the standard and actual cost in the material accounts shows the price difference only, but in the Material Work in Process account the difference now represents a combination of the difference due to variation in price from standard and in the quantity issued over or under standard. This variation is shown monthly by class of product. If these records are of no further use than to ascertain what this difference is they are not worth the effort of making them. Previous to our present plan of accounting it was the custom when an up-to-date cost was called for, to refigure each item of material on the article, which required considerable work, when you consider an item like a coffee urn which is made of twenty-eight different parts consisting of nearly as many different

sizes and gauges of material. Under the standard cost plan this cost is figured in detail but once. When a current cost is called for all that is necessary is to turn to our standard cost and apply to the material cost the ratio of standard to actual as shown in the work in process account. By doing so we take up the correct price adjustment and apply the quantity adjustment as a general charge over articles in the line.

In such material as sterling silver where the market is changing daily it is possible through the use of the standard costs to keep the accounts at the market prices and, if necessary, to charge or credit the profit and loss account with the amounts due to market fluctuations.

In case of material scrap the process is the same as for the material except that it is not always possible to allocate the actual quantities to the various classes on account of the same material being used in several classes, and the scrap being thrown all together. As the work is completed the standard scrap is figured for each order and the total by class of product is used as a basis for distributing the actual quantities to the different classes of product.

Burden

All of the foregoing in regard to direct labor and material differs but very little from the usual methods followed in compiling this class of information. The subject of burden, however, presents an entirely different problem. When a standard cost plan is introduced it is a very radical move from the usual custom of distributing the burden by departments and then making further distribution to other departments.

The use of standard cost in the application of burden brings out very forcibly the fallacy of using the burden rates as a means of judging the efficiency of a department.

Particularly is this true if the burden is based upon direct labor, for if a foreman is very efficient and is able to produce his work with a minimum of direct labor, he is often criticized because his indirect expense is higher in relation to his direct labor than another department, the ratio of which seems to be lower. Often, of the facts are known, the department with the low rate of burden is very inefficient as regards the direct labor. It is not the intent in this article to enter into a discussion of the merits of the various means of distributing burden. In our case we have found that the standard direct labor hour is the best means for burden distribution for our class of work.

The first problem which confronted us in establishing the standard cost plan was to set standard burden costs for each department, and the separation of these items into those which were in the nature of fixed charges and those which varied with production. It is generally known that the burden charged to production tends to vary with the volume of production as a certain proportion of the expense is fixed. This feature of burden costs is the underlying cause for the effort made to decrease costs by increasing production.

In setting the standard burden rates, first consideration was given to the capacity of the plant running full time for one month which was considered as the standard production. This figure was translated into the number of man hours required in each department. The expenses necessary for operating the departments at full time were ascertained and grouped together under the heads of Indirect Labor, Supplies, Back Work, etc. These expenses were then further divided as to whether they were fixed or fluctuating charges.

The actual cost under each of these heads is tabulated for each department. These are summarized on what is known as the monthly cost summary sheet. This sheet is designed so as to show all divisions of the cost both at actual and standard values. The standard burden earned in each department is figured through the application of the standard burden rates to the standard hours in the month's production. This standard burden is compared with actual and the difference is analyzed into a few main heads such as:—Variation in labor rates, efficiency of labor, quantity of supplies, price of supplies, loss in fixed charges due to the plant operating at less than standard time, price and quantity of material. A statement is sent to the factory executive monthly, showing the comparison of the actual cost with the standard cost by departments. This statement does not show a split up of what are known as non-productive departments to the productive departments, but treats every department as a producing unit and shows the amount of the actual expense in comparison with the standard expense earned. Such a statement gives the executive a means of determining just where his costs are increasing and it is not necessary for him to wade through a mass of figures and distributions before he finds such an item as, for example, the cost of labor in the power plant. In the generally accepted system of burden statements it is the custom to make a monthly report which is drawn up so as to show the expenses by accounts in comparison with the month of the previous year. This statement looks very fine but in following through the accounts one usually discovers that at the end an amount is added, which often is in excess of the total of the other, and reads, "Proportion of Unclassified Expenses." This unclassified expense often contains items which are far more important than those which are shown in detail. At the close of each month our statements show the amount of burden earned in each department in comparison with the actual expenses. Back work is a very important item in the silver industry and if a comparative statement of a department shows that the actual expense of this nature is more than the amount scheduled in a department, the foreman of the department is called upon for an explanation. As in the case of direct labor our accounts are so designed that if it is thought advisable to keep a close watch on any particular item of burden, detail daily reports can be sent to the foreman of each department of the cost under any head as compared with standard cost without disturbing the regular routine.

Cost Summaries

The cost summary sheet not only serves as a means for making the comparisons of the actual and standard costs, but is used also as a means of accumulating the total costs of each department by classes of product. The total cost of each class of product at actual and standard as made up on this cost sheet is charged to the Labor and Burden Work in Process accounts. The credits of the corresponding amounts are made to the controlling accounts from which the amounts are made. The relation between the standard and actual cost is also shown in this account by the use of ratios. These ratios are used as a means of converting the standard cost of the credits to actual cost.

The next step in our accounting procedure is to transfer the cost of goods finished from the work in process accounts to the finished goods accounts and from there to the cost of sales accounts.

Under the detail cost plan it would be necessary to price each item at its latest cost which would mean a duplication of our present billing force, and in a great many cases it would not be possible to ascertain the cost of an article until a long period after the shipment was made.

With the use of standard costs the quantity produced of each article is extended at the standard cost and adjusted to actual cost by the use of the ratio shown on the debit side of the Work in Process accounts. At the same time the list price of the production is figured and this amount together with the actual cost are posted to the debit of the Finished Goods account and the actual and standard cost are posted to the credit of the Work in Process account.

The relation between the actual costs and list amount in the Finished Goods accounts are now shown through the use of the ratio of the actual cost to the list amount.

As the large part of our product is sold at a discount from a list price the use of this list as a means of transferring the cost

of the shipments to the Profit and Loss account has saved a great amount of clerical effort in determining the cost of the monthly shipments. As each invoice is prepared for tabulation, the discount or price list, class of product, salesman and shipping point are noted in code. This information is punched on tabulating cards and a monthly tabulation is made by classes of product. These amounts are further divided into the classes of prices at which the goods are sold. The net amount of the sales are brought up to their list value by the use of the discounts at which the goods are sold. The total list price of the shipments are now converted to actual cost by the use of the ratio of actual cost to list as shown in the Finished Stock accounts.

We have found that a further advantage to be gained from the use of standard cost is that of pricing our annual inventory. Before standard costs were used it was the custom to have the Cost Department work nights and Sundays before the first of the year in an effort to be certain that all costs were brought up to date so as to be available for inventory purposes. It often happened that after the inventory was completed it was desired to make changes in certain base prices of metal, which meant that a large part of the cost had to be refigured and the closing of the books delayed. We are now using the standard costs as a basis for our inventory, and if it is necessary to make changes after the inventory is finished, it is only necessary to change the ratios to correspond to the new prices. This procedure has enabled us to get the inventories of our plants at a much earlier date than before and has saved a great deal of wear and tear on the nerves of the clerical force of the Cost Department.

KOTKA IS LUMBER AND PAPER CENTER OF FINLAND

By Gösta P. Genberg, Chemical Engineer

Kotka, May 29, 1923.—Kotka, which is located at the Finish coast about 100 miles from Helsingfors, is the center of the manufacturing and shipping of lumber and the main shipping point for pulp and paper made in Finland. One third of all lumber made in the country is manufactured in Kotka. The immense quantities of refuse from these sawmills is the raw materials for three sulphate mills located around the city. It would be expected that this fact should make Kotka anything but fit to live in on account of the odor, but this is well taken care of by means of chemicals and by the use of smoke stacks about 350 feet high. A visitor will be surprised to find the extent which female labor is employed in this district. In almost every place where no skilled labor is required or where the work is not very hard the worker is a woman with a wage of about 8-10 cents per hour. The sulphate mills in the Kotka district are the W. Gutzeit & Co., A-Bol. Kotka Sulfat Cellulosa, and the Halla Sulphate mill.

W. Gutzeit & Co. is a concern controlled by the Finish Government, owning several sawmills and a sulphate mill with a capacity of 80 tons pulp per day. With such men at the head of the management as Mr. Nils Bjornberg, well known from his activities with the Oxford Paper Co., Rumford, Me., and with the sulphate mill in La Tuque in Canada, the Gutzeit sulphate mill is one of the largest in the Scandinavian countries. As with most concerns government owned the mill suffers from high overhead cost. The largest portion of the production is exported to America, where the A. B. W. G. & Co. grade is well known on the market.

Of most interest in this mill is that the Gutzeit sulphate mill is the pioneer in the recovery of byproducts. At the head of the chemical department is the well known chemical engineer Mr. A. Hellstrom, who has developed the byproducts to a decided success. The Gutzeit Co. is producing the following byproducts per year:

Refined turpentine	144 tons
Methyl alcohol	72 "
Rosin oils	648 "
Ammonium sulphate	12 "

The rosin oils are subjected to fractional distillation when 60 per cent are obtained as pine oil, from which is made a domestic soap, that is a good seller. Three hundred and ninety tons of this soap is made per year. In the fractional distillation about 194 tons tar is also obtained, which is used in printers ink. The installation and the maintenance costs of a recovery plant is small compared with the profits, and one finds that most of the sulphate mills have a proportionate larger profit from the byproducts than from the pulp manufacturing.

A-Bol. Kotka Sulfat Cellulosa is another sulphate mill in the Kotka district, with a capacity of 30 tons of kraft pulp per day. The mill has been reconstructed recently after having been idle for some time. The manager is Mr. K. Nordenswan, who is an old acquaintance to the American industry from his connections with the Jessup & Moor Paper Company, Wilmington, Del., Bogalusa Paper Company, etc.

Halla sulphate mill is owned by the Kymmene Aktiebol. The production is 30 tons of strong and easy bleaching sulphate pulp per day.

Kymmene Aktiebol is one of the largest pulp and paper producing concerns in northern Europe. The company operates besides the above mentioned Halla sulphate mill, three large pulp and paper mills in Finland. The president and general manager for the company is Mr. Einar Ahlman who is well known to the American pulp and paper industry from visits in the U. S. A. and to whom I am very much indebted for his royal hospitality at my visit at the Kymmene Aktiebol's mills. The total daily production of the company is 300 tons per day of high grade pulp and paper. The company operates and owns the following mills:

Kymmene mill is beautifully located at the Kymmene river about 50 miles from the coast. The mill consists of a groundwood mill with grinders and a sulphite mill of four digesters. The production of paper is about 80 tons a day of writing, printing and specialties.

Kuusankoski mill is located on the other side of the Kymmene river and is operated in direct connection with the Kymmene mill. The production here is 35 tons a day of practically the same grades of paper as the above mill.

Woikka mill is located a few miles from the above mills, and the daily production is about 155 tons of printing paper. The mill is going to be expanded with two new paper machines, of which one is going to be an American 1000 feet per minute machine. A new power plant is recently built which in up-to-date equipment hardly can find its competitor. A sulphite alcohol plant, idle because of prohibition, stands as an illustration of lawmaking. Electric steam boilers and other modern equipment make this mill one of the finest as to manufacturing standards and efficiency.

Economics for Executives

In connection with the circular letter sent to all our members on this subject, recently, in which reference was made to the fact that the cost association had gotten in touch with Alvin P. Simonds, who gave an address on this spbject, through the American Chamber of Economics, the following letter has been received from a prominent Executive in the Industry:

I have yours of the 21st inst. in regard to Economies, and in reply I might say that I am a subscriber to 'Economics for Executives,' edited by Mr. George Roberts, and consider it an excellent work."

The gentleman who signed this letter is very well known in the industry, and judging from his letter, it would appear that other executives might well consider the advisability of investigating the course in economics, referred to in our circular letter.

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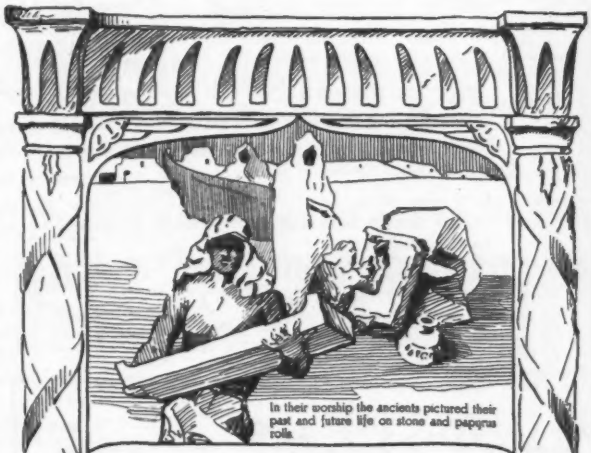

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NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING JULY 7, 1923

SUMMARY

News Print.....3,115 rolls
Printing Paper.....217 cs., 99 rolls, 328 bls.
Wall paper.....3 cs, 74 bls., 129 rolls
Hangings.....18 bls. 4 cs.
Cigarette paper.....107 cs.
Kraft paper.....233 bls.
Packing paper..1,158 pgs., 585 bls., 3,073 rolls, 9 cs.
Wrapping paper.....12,840 rolls, 2,523 bls.
Filter paper.....97 cs., 358 bls.
Drawing paper.....178 cs.
Surface coated paper.....360 cs.
Tissue paper.....9 cs.
Photo paper.....3 cs.
Writing paper.....6 cs.
Colored paper.....8 cs.
Parchment paper.....157 cs.
Basic paper.....94 cs.
Miscellaneous paper,
1,712 bls., 225 cs., 4,979 rolls, 68 bdls.

CIGARETTE PAPER

De Manduit Paper Corp., Waukegan, Havre, 25 cs.
Rose & Frank, by same, 80 cs.
H. H. Strauss, by same, 2 cs.

PAPER HANGINGS

A. C. Dodman, Jr., Celtic, Liverpool, 3 bls.
W. H. S. Lloyd & Co., Maine, London, 15 bls.
W. H. C. Lloyd & Co., by same, 4 cs.

WALL PAPER

W. H. S. Lloyd, Belgenland, Antwerp, 3 cs.
A. C. Dodman, Jr., by same, 4 bls.
The Prager Co., Mongolia, Hamburg, 70 bls.
The Prager Co., by same, 129 rolls.

PRINTING PAPER

B. F. Drakenfeld & Co., Carmania, Liverpool, 32 cs.
Republic Bag & Paper Co., Orbita, Hamburg, 99 rolls.
J. L. N. Smythe & Co., Mt. Clay, Hamburg, 86 bls.
J. L. N. Smythe & Co., by same, 31 cs.
P. Puttmann, Belgenland, Antwerp, 6 cs.
J. L. N. Smythe & Co., Mt. Clinton, Hamburg, 80 cs.
M. O'Meara Co., by same, 242 bls.
B. F. Drakenfeld & Co., Adriatic, Liverpool, 46 cs.
Oxford University Press, Francoma, Liverpool, 22 cs.

NEWS PRINT

Newark Ledger, Drottningholm, Gothenburg, 206 rolls.
M. Gottesman & Co., Inc., Ohio, Hamburg, 259 rolls.
Chemical Nat'l Bank, by same, 980 rolls.
Corn Exchange Bank, by same, 180 rolls.
Parsons & Whittemore, Pr. Harding, Bremen, 874 rolls.
Fernstrom Paper Co., Inc., by same, 327 rolls.
Corn Exchange Bank, Orbita, Hamburg, 289 rolls.

KRAFT PAPER

M. O'Meara Co., Orbita, Hamburg, 126 bls.
M. O'Meara Co., Drottningholm, Gothenburg, 107 bls.

PACKING PAPER

Republic Bag & Paper Co., Pr. Wilson, Trieste, 1,158 pgs.
Ladenburg, Thalman & Co., by same, 104 bls.
Publicity Paper Corp., by same, 176 bls.
Publicity Paper Corp., by same, 21 rolls.
Republic Bag & Paper Co., F. Bulow, Hamburg, 140 bls.
C. Steiner, Muenchen, Bremen, 42 bls.
J. P. Hefferman Paper Co., Bradavon, Hamburg, 13 bls.
Birn & Wachenheim, Mauretania, Liverpool, 9 cs.
Republic Bag & Paper Co., Mongolia, Hamburg, 135 rolls.
Republic Bag & Paper Co., Veendam, Rotterdam, 2,822 rolls.
Republic Bag & Paper Co., by same, 110 bls.
Republic Bag & Paper Co., Orbita, Hamburg, 95 rolls.

WRAPPING PAPER

Wilkinson Bros. & Co., Inc., Mt. Clay, Hamburg, 164 rolls.
Arkell Safety Bag Co., Resolute, Hamburg, 186 rolls.
Arkell Safety Bag Co., by same, 8 bls.
Irving Bank, Columbia Trust Co., by same, 45 rolls.
Bank of America, by same, 401 bls.
C. Steiner, F. Bulow, Hamburg, 12 bls.
Arkell Safety Bag Co., by same, 140 rolls.
Chemical Nat'l Bank, by same, 434 rolls.
T. Barrett & Son, by same, 60 bls.
Irving Bank, Columbia Trust Co., by same, 257 rolls.
Fernstrom Paper Co., Inc., by same, 310 bls.
Wilkinson Bros. & Co., Inc., by same, 706 rolls.
Bankers Trust Co., by same, 1,839 rolls.
C. K. MacAlpine & Co., by same, 888 rolls.
C. K. MacAlpine & Co., by same, 208 bls.
Wilkinson Bros. & Co., Inc., Editor, Rotterdam, 2,687 rolls.
Wilkinson Bros. & Co., Inc., by same, 337 bls.
A. E. MacAdam Co., Stockholm, Gothenburg, 112 bls.
A. E. MacAdam Co., by same, 6795 rolls.
Melby, Kuttroff & Co., Inc., by same, 99 rolls.
M. O'Meara Co., by same, 596 bls.
Irving Bank, Columbia Trust Co., Bergensfjord, Stockholm, 479 bls.

FILTER PAPER

E. H. Sergeant & Co., Stockholm, Gothenburg, 4 cs.
E. H. Sergeant & Co., Drottningholm, Gothenburg, 2 cs.
J. Manheimer, Homeric, Bordeaux, 139 bls.
E. Fougera & Co., by same, 91 cs.
A. Giese & Son, La Bourdonnais, Bordeaux, 32 bls.
H. Reeve Angel & Co., Inc., by same, 102 bls.
C. G. Enler, by same, 75 bls.

DRAWING PAPER

A. Giese & Son, La Bourdonnais, Bordeaux, 7 cs.
E. Dietzgen & Co., Bradavon, Hamburg, 55 cs.
Keuffel & Esser, F. Bulow, Hamburg, 50 cs.
Keuffel & Esser, Westphalia, Hamburg, 66 cs.

BLUE PRINT PAPER

Keuffel & Esser, Westphalia, Hamburg, 75 rolls.
Keuffel & Esser, F. Bulow, Hamburg, 93 rolls.

SURFACE COATED PAPER

P. C. Zuhlke, F. Bulow, Hamburg, 48 cs.
Globe Shipping Co., Muenchen, Bremen, 100 cs.
Gevaert Co. of America, Inc., Belgenland, Antwerp, 31.
Globe Shipping Co., Pr. Harding, Bremen, 50 cs.
P. C. Zuhlke, Veendam, Rotterdam, 131 cs.

TISSUE PAPER

F. C. Strype, Carmania, Liverpool, 4 cs.
Meagher, Devoy Shipping Co., Adriatic, Liverpool, 2 cs.
Meadows, Wye & Co., by same, 3 cs.

PHOTO PAPER

P. C. Zuhlke, Orizaba, Havana, 2 cs.
Lithoprint Co., Belgenland, Antwerp, 1 cs.

WRITING PAPER

E. Dietzgen Co., Britannia, Marseilles, 6 cs.

COLORED PAPER

Borden, Riley Paper Co., Belgenland, Antwerp, 8 cs.

PARCHMENT PAPER

F. C. Strype, Belgenland, Antwerp, 157 cs.

BASIC PAPER

Globe Shipping Co., Pr. Harding, Bremen, 86 cs.
M. C. Lang, by same, 6 cs.

PAPER

Wilkinson Bros. & Co., Inc., Pr. Harding, Bremen, 36 bls.
Wilkinson Bros. & Co., Inc., by same, 49 cs.
Birn & Wachenheim, Laconia, Hamburg, 7 bls.
British American Tobacco Co., by same, 409 rolls.
H. Reeve Angel & Co., Inc., by same, 7 cs.
D. S. Walton & Co., by same, Hamburg, 284 bls.
Melby, Kuttroff & Co., Inc., by same, 20 bls.
R. F. Downing & Co., La Savoie, Havre, 15 cs.
Gallagher & Ascher, by same, 4 cs.
Judson, Freight Fdg. Co., by same, 7 cs.
Independent Fdg. Co., by same, 4 cs.
Int'l Acceptance Bank, Orbita, Hamburg, 137 rolls.
Int'l Acceptance Bank, by same, 60 bls.
Wilkinson Bros. & Co., Inc., Ohio, Hamburg, 123 bls.
Publicity Paper Corp., by same, 14 cs.
C. G. Keperstein, by same, 34 cs.
Int'l Acceptance Bank, by same, 261 rolls.
H. Reeve Angel & Co., Inc., Homeric, London, 3 cs.
Fernstrom Paper Co., Inc., Bradavon, Hamburg, 21 bls.
Blauvelt, Wiley Paper Mfg. Co., by same, 11 bls.
Blauvelt, Wiley Paper Mfg. Co., by same, 100 rolls.
D. S. Walton Co., by same, 987 rolls.
Chemical Nat'l Bank, by same, 44 rolls.
Int'l Acceptance Bank, by same, 66 bls.
C. A. Johnson & Co., Adriatic, Liverpool, 19 bls.
P. H. Petry & Co., Westphalia, Hamburg, 4 cs.
J. R. Livermore, Inc., G. Cesare, Genoa, 17 bls.
F. L. Kramer, Maine, London, 6 cs.
Wilkinson Bros. & Co., Inc., Polonia, Liban, 70 bls.
Japan Paper Co., Stockholm, Gothenburg, 5 cs.
A. E. MacAdam & Co., by same, 24 bls.
A. E. MacAdam & Co., by same, 278 rolls.
Fernstrom Paper Co., Inc., by same, 105 bls.
M. M. Cohen, by same, 28 bls.
M. M. Cohen, by same, 254 rolls.
Irving Bank, Columbia Trust Co., by same, 279 rolls.
Tompkins & Tuthill, Inc., by same, 6 rolls.
Tompkins & Tuthill, Inc., by same, 244 bls.
C. K. MacAlpine & Co., by same, 68 bdls.
C. K. MacAlpine & Co., by same, 121 rolls.
Equitable Trust Co., by same, 731 rolls.
Equitable Trust Co., by same, 372 bls.
Whiting & Patterson, by same, 5 bls.
Independent Fdg. Co., France, Havre, 9 bls.
C. H. Boulin, by same, 47 cs.
Nat'l City Bank, Elzasier, Antwerp, 19 cs.
F. L. Kramer, Pr. Monroe, London, 3 cs.
Ladenburg, Thalman & Co., Estonia, Liban, 1,255 rolls.
Irving Bank, Columbia Trust Co., Bergensfjord, Kristiania, 111 rolls.
Irving Bang, Columbia Trust Co., by same, 33 bls.
Melby, Kuttroff & Co., by same, 57 bls.
Birn & Wachenheim, F. Bulow, Hamburg, 18 bls.
M. M. Cohen, Drottningholm, Gothenburg, 21 bls.
W. E. Shuttleworth, by same, 27 bls.
W. E. Shuttleworth, by same, 6 rolls.
C. G. Winans Co., by same, 772 rolls.
C. G. Winans Co., by same, 109 bls.
American Shipping Co., Mt. Clinton, Hamburg, 4 cs.
C. Steiner, by same, 67 cs.

RAGS, BAGGING, ETC.

Castle & Overton, Ninian, Manchester, 74 bls. rags.
Reis & Co., Editor, Rotterdam, 105 bls. cotton waste.
S. Silberman, N. Amsterdam, Rotterdam, 44 bls. bagging.
Union Nat'l Bank, by same, 101 bls. bagging.
E. Butterworth & Co., Inc., W. Inskip, Antwerp, 224 bls. bagging.
E. J. Keller Co., Inc., by same, 128 bls. bagging.
M. O'Meara Co., by same, 240 bls. flax waste.
Brown Bros. & Co., by same, 20 bls. rags.
E. J. Keller Co., Inc., F. Bulow, Hamburg, 434 bls. rags.
E. Butterworth & Co., Inc., Elzasier, Antwerp, 142 bls. bagging.
Irving Bank, Columbia Trust Co., by same, 295 bls. flax waste.
Int'l Acceptance Bank, by same, 157 bls. new cuttings.
W. Schall & Co., by same, 37 bls. new cuttings.
Equitable Trust Co., by same, 51 bls. bagging.
Equitable Trust Co., by same, 147 bls. rags.
E. Butterworth & Co., Inc., Adriatic, Liverpool, 49 bls. bagging.
E. Butterworth & Co., Inc., Galileo, Hull, 733 bls. bagging.
Equitable Trust Co., City of St. Joseph, Marseilles, 93 bls. rags.
Equitable Trust Co., by same, 26 bls. new cuttings.
L. H. Abenheimer, Angela, Barcelona, 1,178 bls. rags.
S. Silberman, Bradavon, Hamburg, 205 bls. rags.
Castle & Overton, by same, 101 bls. rags.
E. J. Keller Co., Inc., by same, 53 bls. linen canvas.
D. M. Hicks, Waukegan, Dunkirk, 29 bls. waste.
Equitable Trust Co., Belgenland, Antwerp, 139 bls. flax waste.
Int'l Acceptance Bank, by same, 63 bls. flax waste.
E. J. Keller Co., Inc., Laconia, Hamburg, 436 bls. rags.

(*Continued on page 70*)

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New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, July 11, 1923.

Two elements are interesting paper men throughout the city this week. Both of them are so vital that no discussion of the market of the week can leave them out although the effect of them has not as yet been shown. Just how much they are going to affect the whole situation is on the knees of the gods.

They are the strike of the pulp mill workers in Norway and the embargo on pulpwood from Canada. Both are related to each other in that they indicate a shortage in raw material in the United States which may conceivably lead to curtailed production and a heavy demand.

Many mills depend upon foreign pulp to keep running. It is not a matter of mere preference, but of necessity. In the same way many paper manufacturers depend upon Canadian wood for their raw material. It is simply a hard economic fact that the United States has not the timber on hand to meet the demands of domestic paper mills. In years past the United States had come to regard its natural resources as inexhaustible. That such is not the case is only too apparent in the present crisis in which the industry finds itself at the mercy of Scandinavian labor and Canadian legislators.

If a plentiful supply of raw material were assured over the next six months the lost production of the Norwegian mills could be made up by the domestic mills running overtime. But with the threatened shortage due to the action of the Canadian parliament the situation is such that one man's guess about what will happen is as good as another's.

The members of the industry are making all preparations to fight the Canadian pulpwood embargo as is set forth in other pages of this issue. That must be the first step in the relief of the situation, which as yet is several months away. The members of the industry are to be congratulated in taking time by the forelock.

Meanwhile, with heavy storm clouds rolling up on the horizon, the market is just as becalmed as "a painted ship upon a painted ocean." Fortunately the general run of consumers have not become alarmed and there is plenty of chance to get the sea anchors ready and tighten the braces for the hurricane when it does strike. There is always the possibility that the whole thing may blow over. The industry as a whole is in an extremely healthy condition in spite of the usual mid summer dullness, but far sighted members of the trade say that the lassitude is likely to disappear with the suddenness of snow upon the desert's face at any moment. Things are quiet, but it is the quiet that goes before a storm, well informed paper men say.

There are some indications of an increasing demand, with increasing prices. They are vague, diaphonous, perhaps, but they are there. Pulp men say that they are getting cautious feelers from consumers indicating an interest in the situation 60 or 90 days hence. The same is true of paper men. In pulp higher prices are expected to arrive shortly and some of the grades of paper are expected to show increases.

Fine papers have showed little or no real change during the week. Most of the dealing in these grades are done by contract during the summer months and few but distressed lots find their way into the open market, where trading is spotty at the present time.

News print is still moving at a brisk rate both on contract and in the spot market. The slight falling off which made itself evident in side runs and sheets a couple of weeks ago became no more evident in the past few days and it is considered likely that that was the only attack of midsummer slowness that this field of the market would get this year.

Tissues have shown no real change. They are still in fairly good demand with trading fair in the open market. Dealers look for increases within about 60 days they say and a few even predict that they will come sooner.

Wrapping and coarse papers have shown no increases during the week and the demand has been jogging along at about the same rate for the past month or six weeks. There is nothing save the generally delicate situation of the market to indicate that there will be any changes in these grades for some time to come.

Board is reported to have shown a decidedly firmer inclination during the past five or six days with a higher price expected within another week.

Mechanical Pulp

Ground wood has been in considerably more demand since the news that Canada might stop all pulpwood exports became generally known throughought the industry. It is apparent that there are a number of mills which intend to store to capacity against any emergency which may arise no matter how far away it may seem to be at the present time.

Chemical Pulp

The same thing is true of sulphite and other grades of chemical pulp. The shortage of Norwegian pulp has something to do with this in addition to the situation that has arisen in Canada. Dealers in this city are of the opinion that higher prices will make themselves evident within a very short time now although they have remained the same on the whole during the past week.

Old Rope and Bagging

Old rope and bagging have shown pronounced signs of life during the past week and even though the demand is none too good as yet dealers are optimistic over the immediate outlook. There have been no great changes in price, but quotations have shown a firmer note and the mills are evincing some slight interest in buying for future use.

Rags

Along with other raw materials rags, both imported and domestic, have picked up somewhat during the past week. Prices have remained about the same, but they are firmer and the demand is growing, dealers say. This is demonstrated by an increase in importations and everything seems to be looking toward a good business in the fall.

Waste Paper

With packers and mills both carrying small stocks of waste paper it is evident that something is going to happen in this market soon. Already an increased number of inquiries are reported by dealers. The downward trend of prices had a serious effect on collections, but it is said that collectors have begun operating in a small way once more.

Twine

Twine is also in slightly improved demand with price remaining at about the same place and firm. Dealers are optimistic about the immediate future and say that they expect to be doing an excellent business by the middle of next month.

Czechoslovakian Paper Industry Slow

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., July 9, 1923.—The Paper Division of the Department of Commerce has the following report from Consul Winans, at Prague, in connection with the Czechslovakian paper industry.

"A handicap under which the paper industry has had to labor during the past year, has been the ability of the German mills to import Czechoslovakian cellulose and manufacture paper far cheaper than could the local mills. As this situation has resulted from high wages and transportation costs, it is difficult to see any immediate relief, since wages could not be greatly reduced while the cost of living remains so high—and to reduce railways transportation charges would merely make it easier for Germany to purchase Czechoslovakian wood.

Market Quotations

PAPER STOCK SECURITIES

New York Stock Exchange closing quotations July 10, 1923.

	BID	ASKED
American Writing Paper Company, pref.	14	15
International Paper Company, com.	36	37
International Paper Company, pref., stamped.	63½	64
Union Bag & Paper Corporation	62	63½

Paper

F. o. b. Mill.	
Ledgers	11.00 @38.00
Bonds	9.00 @45.00
Writings—	
Extra Superfine	14.00 @30.00
Superfine	14.00 @30.00
Tub Sized	10.00 @15.00
Engine Sized	8.00 @11.00
News—f. o. b. Mill—	
Rolls, contract	3.80 @ 4.00
Rolls, transit	4.00 @ 4.25
Sheets	4.25 @ 4.50
Side Runs	3.50 @ 4.15
Book, Cased—f. o. b. Mill	
S. & S. C.	7.25 @ 9.00
M. F.	7.00 @ 8.75
Coated and Enamel	9 .00 @14.00
Lithograph	9.00 @14.00
Tissues—f. o. b. Mill	
White No. 1	.90 @ 1.00
White No. 2	.85 @ .95
Colored	1.15 @ 2.00
Anti-Tarnish	1.50 @ 2.00
Kraft	.95 @ 1.15
Manila	.85 @ .95
Kraft—f. o. b. Mill—	
No. 1 Domestic	7.00 @ 7.50
No. 2 Domestic	5.50 @ 6.00
Imported	6.50 @ 7.00
Screenings	3.25 @ 3.50
Manila—	
No. 1 Jute	8.50 @ 9.00
No. 2 Jute	7.75 @ 8.50
No. 1 Wood	4.75 @ 5.50
No. 2 Wood	4.00 @ 4.50
Butchers	4.25 @ 4.75
Fibre Papers—	
No. 1 Fibre	6.00 @ 6.25
No. 2 Fibre	5.25 @ 5.50
Common Bogus	3.50 @ —
Card Middies	4.00 @ 5.00
Boards—per ton—	
News	57.50 @60.00
Straw	61.00 @63.00
Chip	57.50 @60.00
Binders' Boards	75.00 @80.00
Sgl. Mla.L1. Chip.	74.00 @80.00
Wood Pulp	70.00 @75.00
Container	70.00 @80.00
Wax Paper—	
Self Sealing White 28 and 30 lb. basis	11.00 @12.00
Waxed Tissue	1.56 @ 1.65
Glassine—	
Bleached, basis 25 lbs.	15.00 @16.00
Bleached, basis 20 lbs.	17.00 @18.00
Papermakers' Felts per ton—	
Dry	75.00 @85.00
Saturated	65.00 @75.00
Sheathing Paper, per ton—	
Rosin Sized (red and gray, 30 lbs. per 500 sq. ft.)	55.00 @65.00

Mechanical Pulp

(Ex-Dock)	
No. 1 Imported	35.00 @40.00
(F. o. b. Mill)	
No. 1 Domestic	35.00 @40.00

Chemical Pulp

(Ex-Dock, Atlantic Ports.)	
Sulphite (Imported)—	
Bleached	4.50 @ 5.00
Easy Bleaching	3.50 @ 3.75
No. 1 strong unbleached	3.30 @ 3.50
No. 2 Strong unbleached	2.85 @ 3.10
No. 1 Kraft	3.25 @ 3.40
Sulphate—	
Bleached	4.00 @ 4.15
(F. o. b. Pulp Mill.)	
Sulphite (Domestic)—	
Bleached	4.50 @ 5.00
Strong unbl'chd	3.10 @ 3.30
Easy Bleaching Sulphite	3.25 @ 3.50
News Sulphite	3.00 @ 3.25
Mitscherelich	3.20 @ 3.30
Kraft (Domestic)	2.10 @ 3.30
Soda Bleached	4.25 @ 4.35

Domestic Rags

Prices to Mill, f. o. b. N. Y.	New	
Shirt Cuttings—		
New White, No. 1	12.25	@12.75
New White, No. 2	5.50	@ 6.25
Silesias, No. 1	7.00	@ 7.50
New Unbleached	10.25	@10.75
Washables	4.50	@ 5.00
Fancy	5.50	@ 6.00
Cotton—according to Grades—		
Blue Overall	7.25	@ 7.75
New Blue	4.50	@ 5.50
New Black Soft.	4.50	@ 5.00
New Light Seconds	2.75	@ 3.00
O. D. Khaki Cuttings	4.25	@ 4.50
Men's Corduray	3.00	@ 3.50
New Canvas	6.50	@ 7.00
New Black Mixed, Old	2.50	@ 2.70
White, No. 1—		
Repacked	5.50	@ 6.00
Miscellaneous	4.75	@ 5.25
White, No. 2—		
Repacked	3.25	@ 3.75
Miscellaneous	2.75	@ 3.00
St. Soiled, White	1.90	@ 2.10
Thirds and Blues—		
Repacked	2.35	@ 2.60
Miscellaneous	1.90	@ 2.15
Black Stockings	2.75	@ 3.00
Roofing Rags—		
Cloth Strippings	1.10	@ 1.20
No. 1	1.10	@ 1.20
No. 2	1.05	@ 1.15
No. 3	.80	@ .90
No. 4	.80	@ .90
No. 5A	1.00	@ 1.10

Foreign Rags

New Light Silesias	6.00 nominal
Light Flannelettes	6.75 nominal
Unbl'chd Cottons	7.50 nominal
New White Cuttings	9.50 nominal
New Light Oxfords	6.00 nominal
New Light Prints	4.50 nominal
New Mixed Cuttings	2.00 @ 2.50
New Dark Cuttings	1.90 @ 2.10
No. 1 White Linens	10.00 nominal
No. 2 White Linens	6.50 nominal
No. 3 White Linens	5.00 nominal
No. 4 White Linens	3.50 nominal
Old Extra Light Prints	2.00 nominal
Ord. Light Prints	1.75 nominal
Med. Light Prints	1.50 nominal
Dutch Blue Cotton	1.85 @ 2.15
German Blue Cottons	1.65 nominal
Ger. Blue Linens	3.50 nominal
Checks and Blues	1.50 nominal
Dark Cottons	1.30 @ 1.35
Shoppery	1.00 @ 1.05
French Blues	1.75 @ 2.00

Bagging

Prices to Mill F. o. b. N. Y.	
Gunny No. 1—	
Foreign	1.10 @ 1.20
Domestic	1.10 @ 1.20
Wool, Tares, light.	1.30 @ 1.40
Wool, Tares, reavy	1.30 @ 1.40
Bright Bagging	1.05 @ 1.20
Sound Bagging	.85 @ .95
Manila Rope—	
Foreign	5.90 @ 6.15
Domestic	6.15 @ 6.35
New Bu. Cut	2.15 @ 2.25
Hessian Jute Threads—	
Foreign	2.00 @ 2.25
Domestic	2.00 @ 2.10
Mixed Strings	1.00 @ 1.10

Twines

Cotton—(F. o. b. Mill)	
No. 1	.35 @ .37
No. 2	.31 @ .33
No. 3	.37 @ .39
India, No. 6 basis—	
Light	.20 @ .21
Dark	.19 @ .20
B. C., 18 basis	.41 @ .42
A. B. Italian, 18 Basis	.51 @ .61
Finished Jute—	
Dark, 18 basis	.29 @ .30
Light, 18 basis	.26 @ .27
Jute Wrapping, 3-6 Ply—	
No. 1	.23 @ .24
No. 2	.21 @ .22
Tube Rope—	
4-ply and larger	.15 @ .17
Fine Tube Yarn—	
5-ply and larger	.19 @ .21
4-ply	.20 @ .22
3-ply	.20 @ .22
Unfinished India—	
Basis	.16 @ .17
Paper Makers Twine Balls	.13 @ .15
Box Twine, 2-3 ply	.18 @ .19
Jute Rope	.17 @ .20
Amer. Hemp, 6	.33 @ .35
Sisal Hay Rope—	
No. 1 Basis	.15 @ .17
No. 2 Basis	.13 @ .15
Sisal Lath Yarn—	
No. 1	.14 @ .15
No. 2	.11 @ .13
Manila Rope	.18 @ .19

Old Waste Papers

(F. o. b. New York)	
Shavings—	
Hard, White, No. 1	4.00 @ 4.20
Hard, White, No. 2	3.40 @ 3.70
Soft, White, No. 1.	3.30 @ 3.50
Flat Stock—	
Stitchless	1.95 @ 2.05
Over Issue Mag.	1.95 @ 2.05
Solid Flat Book	1.85 @ 1.95
Crumpled No. 1	1.40 @ 1.50
Solid Book Ledger.	2.70 @ 2.90
Ledger Stock	1.90 @ 2.10
New B. B. Chips.	.85 @ .95
Manilas—	
New Env. Cut	2.50 @ 2.75
New Cut No. 1	2.00 @ 2.25
Extra No. 1 old.	1.70 @ 1.80
Print	1.15 @ 1.25
Container Board.	1.00 @ 1.10
Bogus Wrapper	.90 @ 1.00
Old Krafts, machine compressed Bales.	2.10 @ 2.20
News—	
No. 1 White News	2.00 @ 2.10
Strictly overissue	1.15 @ 1.20
Strictly Folded	.90 @ 1.00
No. 1 Mixed Paper.	.75 @ .85
Common paper	.50 @ .60

CHICAGO

[FROM OUR REGULAR CORRESPONDENT.]

Paper

F. o. b. Mill	
All Rag Bond	35 @ 40
No. 1 Rag Bond	30 @ 35
No. 2 Rag Bond	18 @ 25
Water Marked Sulphite	10 @ 14
Sulphite Bond	9 @ 12
Sulphite Ledger	11 @ 14
Superfine Writing	18 @ 24
No. 1 Fine Writing.	14 @ 22
No. 2 Fine Writing.	12 @ 20
No. 3 Fine Writing.	9 @ 12
No. 1 M. F. Book	6½ @ 7
No. 1 S. & S. C. Book	7 @ 7½
Coated Book	9 @ 10½
Coated Label	9 @ 10
News—Rolls mill	4 @ 4½
News—Sheets, mill.	4¼ @ 4¾
No. 1 Manila	4¾ @ 6
No. 1 Fibre	5¼ @ 5¾
No. 2 Manila	4½ @ 5
Butchers' Manila	4 @ 4½
No. 1 Kraft	7 @ 7½
No. 2 Kraft	6½ @ 7
Wood Tag Boards	5 @ 5½
Screenings	5 @ 5½
Boards, per ton—	
Plain Chip	60.00 @65.00
Solid News	65.00 70.00
Manila Lined Chip	70.00 @72.50
Container Lined—	
85 Test	75.00 @80.00
100 Test	80.00 @85.00

Old Papers

F. o. b. Chicago	
Shavings—	
No. 1 Hard White	3.50 @ 3.60
No. 1 Soft Shav.	3.25 @ 3.35
No. 1 Mixed	1.60 @ 1.70
No. 2 Mixed	1.50 @ 1.60
White Envel. Cuttings	3.50 @ 3.60
Ledgers and writings	1.75 @ 1.80
Solid Books	1.75 @ 1.80
No. 1 Books, Light.	1.50 @ 1.55
Blanks	1.85 @ 1.90
Ex. No. 1 Manila	1.90 @ 1.95
Manila Envelope Cuttings	2.50 @ 2.60
No. 1 Manilas	1.50 @ 1.60
Folders News (over issue)	1.30 @ 1.40
Old Newspaper	1.15 @ 1.20
Mixed Papers	.70 @ .75
Straw Clippings	.80 @ .85
Binders Clippings	.80 @ .85
Kraft	2.40 @ 2.50
New Kraft Cuts	2.25 @ 2.30
Roofing Stock, f. o. b. Chicago, Net Cash—	
No. 1	28.00 @ —
No. 2	26.00 @ —
No. 3	24.00 @ —
No. 4	24.00 @ —

PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT.]

Paper

Bonds	.10 @ .60
Ledgers	.15 @ .40
Writings—	
Superfine	.15 @ .20
Extra fine	.12 @ .22
Fine	.20 @ .30
Fine, No. 2	.20 @ .25
Fine, No. 3	.15 @ .20
Book, M. F.	.06 @ .11
Book, S. S. & C.	.08 @ .15
Book, Coated	.08 @ .15
Coated Lithograph	.10 @ .15
Label	.08 @ .15
News	.05 @ .07
No. 1 Jute Manila.	.12 @ .13
Manila Sul., No. 1.	.08 @ .10
Manila No. 2	.07½ @ .08
No. 2 Kraft	— @ .10
No. 1 Kraft	— @ .11
Common Bogus	.02½ @ .03
Straw Board	75.00 @85.00
News Board	65.00 @70.00
Chip Board	62.50 @67.00
Wood Pulp Board	1.25 @ 1.50
(Carload Lots)	
Binder Boards—	
Per ton	75.00 @80.00
Carload lots	75.00 @80.00
Tarred Felts—	
Regular	48.00 @50.00
Slaters	54.00 @56.00
Best Tarred, 1-ply (per roll)	1.35 @ 1.50
Best Tarred, 2-ply (per roll)	1.00 @ 1.15
Best Tarred, 3-ply	1.50 @ 1.65

Bagging

F. o. b. Phila.	
Gunny No. 1—	
Foreign	1.25 @
Domestic	1.20 @ 1.25
Manila Rope	5.00 @ 6.25
Sisal Rope	.75 @ .80
Mixed Rope	.75 @ .80
Scrap Burlaps	1.00 @ 1.25
Wool Tares, heavy.	2.50 @ 2.75
Mixed Strings	.75 @ .80
No. 1, New Lt. Burlap	1.75 @ 2.00
New Burlap Cuttings	1.75 @ 2.10

Old Papers

F. o. b. Phila.	
Shavings—	
No. 1, Hard White	4.00 @ 4.25
No. 2, Hard White	3.50 @ 3.75
No. 1 Soft White	3.50 @ 3.75
No. 2 Soft White	1.75 @ 2.00

(Continued on page 72)

Imports and Exports of Paper and Paper Stock

(*Continued from page 66*)

Castle & Overton, Veendam, Rotterdam, 40 bls. rags.
E. Butterworth & Co., Inc., Celtic, Liverpool, 144 bls. bagging.
First Nat'l Bank of Boston, La Bourdonnais, Bordeaux, 9 bls. rags.
Brown Bros. & Co., Exeter City, Bristol, 92 bls. rags.
I. Dorfman & Son, by same, 64 bls. bagging.

OLD ROPE

Brown Bros. & Co., Belgenland, Antwerp, 280 coils.
Brown Bros. & Co., Exeter City, Bristol, 239 coils.
Brown Bros. & Co., Editor, Rotterdam, 80 coils.
Brown Bros. & Co., Galileo, Hull, 461 coils.
Chemical Nat'l Bank, Mt. Clinton, Hamburg, 99 coils.
Chemical Nat'l Bank, F. Bulow, Hamburg, 41 coils.
Chemical Nat'l Bank, Resolute, Hamburg, 46 coils.
Irving Bank, Columbia Trust Co., Waukegan, Dunkirk, 123 coils.
Int'l Acceptance Bank, Veendam, Rotterdam, 196 coils.
S. Birkenstein & Sons, Laconia, Hamburg, 58 coils.
Katzenstein & Keene, Inc., Angela, Barcelona, 148 coils.

CASEIN

Atterbury Bros., Inc., Waimana, Auckland, 214 bags.
American Trading Co., Sussex, Melbourne, 99 bags.
A. Hurst & Co., Inc., Pr. Adams, London, 100 bags.
J. M. Duche & Sons, Vasari, Buenos Aires, 1,251 bags.
Int'l Acceptance Bank, by same, 835 bags.
Irving Bank, Columbia Trust Co., by same, 417 bags.
A. Klipstein & Co., Mongolia, Hamburg, 134 bags.
Jungmann & Co., by same, 200 bags.
Kalbfleisch Corp., Pan America, Buenos Aires, 1,000 bags.

CHINA CLAY

C. F. Wilson & Co., Inc., Exeter City, Bristol, 170 casks.
C. F. Wilson & Co., Inc., by same, 734 bags.

WOOD PULP

Castle & Overton, Pr. Fillmore, Bremen, 204 bls. 45 tons wood pulp.
Castle & Overton, Pr. Harding, Bremen, 1,690 bls., 349 tons wood pulp.
Bulkley, Dunton & Co., by same, 1,000 bls., 200 tons dry sulphate.
Bulkley, Dunton & Co., by same, 125 bls., 25 tons sulphite.
Brown Bros. & Co., Orbita, Hamburg, 645 bls. wood pulp.
Tidewater Papermills Co., Barfond, Murray Bay, 9,434 bls. wood pulp.
Poland Paper Co., Pr. Wilson, Trieste, 1,014 bls. wood pulp.
Poland Paper Co., Bergensfjord, Kristiania, 3,025 bls. bleached sulphite.
Nilsen, Lyon & Co., Inc., by same, 300 bls. dry sulphite.
Nilsen, Lyon & Co., Inc., Oscar II, Kristiania, 125 bls. wood pulp.
H. Hollesen, Muenchen, Bremen, 2,874 bls. wood pulp.
H. Hollesen F. Bulow, Hamburg, 2,535 bls. 417 tons wood pulp.
Johanesson, Wales & Sparre, Inc., by same, 300 bls., 50 tons sulphite.
Johanesson, Wales & Sparre, Inc., Stockholm, Gothenburg, 750 bls. sulphite.
E. M. Sergeant & Co., by same, 1,016 bls. sulphite.
Pagel, Horton & Co., Inc., Westport, Gefle, 500 bls., 101 tons dry sulphite.
Bulkley, Dunton & Co., by same, 1,000 bls. 203 tons dry sulphite.
Johanesson, Wales & Sparre, Inc., Westport, Gothenburg, 250 bls., 50 tons dry sulphite.
R. F. Hammond, Inc., Drottningholm, Gothenburg, 1,500 bls. 300 tons unbleached sulphite.
Hudson Trading Co., Bradavon, Hamburg, 671 bls., 100 tons chemical pulp.

WOOD PULP BOARDS

Lagerloef Trading Co., Westport, Hango, 1,275 bls., 125 tons.

WOOD FLOUR

A. Kramer & Co., Laconia, Hamburg, 401 bags.
A. Kramer & Co., Ohio, Hamburg, 408 bags.
A. Kramer & Co., N. Amsterdam, Rotterdam, 600 bags.
Hansa Co., Bradavon, Hamburg, 400 bags, 20,000 kilos.
B. L. Soberski, Bergensfjord, Frederickstad, 750 bags.

BOSTON IMPORTS

WEEK ENDING JULY 7, 1923

PAPER

Mischell & Williams, Pr. Wilson, Trieste, 934 rolls packing paper.
Mischell & Williams, by same, 406 pgs. packing paper.
Mischell & Williams, by same, 155 bbls. packing paper.

RAGS, BAGGING, ETC.

G. M. Granes & Co., Chickasaw, London, 149 bls. new cuttings.
Castle & Overton, by same, 181 bls. waste paper.
American Express Co., by same, 249 bls. waste paper.
True & McClelland, by same, 143 bls. waste paper.
Kutzenstein & Keene, Inc., Darian, London, 143 bls. new cuttings.
E. J. Keller Co. Inc., Glen Ridge, Rotterdam, 168 bls. rags.
Geo. W. Wheelwright Paper Co., Barbadian, London, 220 bls. waste paper.
E. Butterworth & Co., Inc., by same, 60 bls. waste paper.
International Purchasing Co., by same, 130 coils manila rope.
Train Smith Co., by same, 120 bls. new rags, 22 coils manila rope, 252 bls. waste paper.
Geo. W. Graves, by same, 24 bls. new rags.
International Purchasing Co., Davisian, Liverpool, 208 coils manila rope.
Burman & Bolonsky, by same, 17 bls. rags.
Geo. W. Wheelwright & Co., Scythian, Liverpool, 259 bls. waste paper.
Daniel M. Hicks, Inc., by same, 293 bls. waste paper.
Train Smith Co., by same, 89 bls. waste paper, 38 coils manila rope.
Hollingsmith & Vose Co., Winifredian, Liverpool, 51 bls. old bagging.
International Purchasing Co., by same, 39 coils manila rope.
Geo. M. Graves & Co., Ninian, Manchester, 64 bls. old rags, 95 bls. new cuttings.
Train Smith Co., by same, 177 bls. new cuttings.
International Purchasing Co., Devonian, Liverpool, 96 coils rope.

HIDE CUTTINGS

E. F. Russ Co., Winifredian, Liverpool, 209 bags.
E. F. Russ Co., Ninian, Manchester, 478 bags.
Maurice O'Meara Co., by same, 20 bags.
Ashworth & Speakman Co., by same, 394 bags.

WOOD PULP

Castle & Overton, Porta, Hamburg, 375 bls. wood pulp.
Pagel, Horton & Co., Inc., Westport, Gefle, 500 bls., 101 tons dry sulphate.
Pagel, Horton & Co., by same, 8,210 bls., 956 tons dry sulphite.
Bulkley, Dunton & Co., by same, 1,000 bls., 203 tons dry sulphite.
Scandinavian American Trading Co., Westport, Gothenburg, 1,016 bls., 203 tons bleached sulphite.
Scandinavian American Trading Co., by same, 254 bls., 50 tons Kraft sulphate.
Johanesson, Wales & Sparre, Inc., by same, 254 bls., 50 tons strong sulphate.
Johanesson, Wales & Sparre, Inc., by same, 508 bls., 101 tons bleached sulphite.
Johanesson, Wales & Sparre, Inc., by same, 1,500 bls., 304 tons dry sulphite.

CASEIN

First Nat'l Bank of Boston, W. Camak, Buenos Aires, 1,252 bags, 75,120 ks.
First Nat'l Bank of Boston, Sussex, Melbourne, 400 bags.

PHILADELPHIA IMPORTS

WEEK ENDING JULY 7, 1923

RAGS, BAGGING, ETC.

Castle & Overton, E. Dawn, Rotterdam, 293 bls. rags.
Castle & Overton, Porta, Hamburg, 93 bls. rags.
Castle & Overton, W. Elcasco, Genoa, 561 bls. rags.
Castle & Overton, Breedyk, Rotterdam, 431 bls. rags.
Castle & Overton, W. Inskip, Antwerp, 106 bls. rags.
Waste Material Trading Corp., by same, 566 bls. rags.
American Wood Pulp Corp., by same, 543 bls. rags.
American Wood Pulp Corp., by same, 60 bls. new cuttings.
Equitable Trust Co., City of St. Joseph, Marseilles, 87 bls. rags.
Castle & Overton, by same, 67 bls. rags.
Castle & Overton, Bradavon, Hamburg, 80 bls. rags.
Ladenburg, Thalman & Co., by same, 335 bls. rags.
Irving Bank, Columbia Trust Co., by same, 49 bls. rags.
Katzenstein & Keene, Inc., by same, 132 bls. rags.
Equitable Trust Co., by same, 120 bls. rags.
E. J. Keller Co., Inc., E. Dawn, Rotterdam, 331 bls. rags.
E. J. Keller Co., Inc., M. Merchant, Manchester, 291 bls. bagging.
E. J. Keller Co., Inc., Sonora, Rouen, 35 bls. rags.
Castle & Overton, Sonora, Havre, 145 bls. rags.
Castle & Overton, by same, 310 bls. bagging.
Waste Material Trading Corp., by same, 560 bls. rags.
E. J. Keller Co., Inc., Naperian, Antwerp, 84 bls. rags.
E. J. Keller Co., Inc., Beemsterdyk, Rotterdam, 45 bls. rags.
E. J. Keller Co., Inc., Columbia, Trieste, 673 bls. rags.

OLD ROPE

Castle & Overton, Breedyk, Rotterdam, 51 coils.
Brown Bros. & Co., Exeter City, Bristol, 193 coils.

WOOD FLOUR

Rohn, Haas Co., Bradavon, Hamburg, 1,526 bags, 64,670 ks.

WOOD PULP

E. J. Keller Co., Inc., Porta, Bremen, 253 bls. wood pulp.
Castle & Overton, ——, Bremen, 966 bls. wood pulp.
Castle & Overton, Breedyk, Rotterdam, 450 bls. wood pulp.
Castle & Overton, Pr. Roosevelt, Bremen, 1,375 bls. wood pulp.

BALTIMORE IMPORTS

WEEK ENDING JULY 7, 1923

RAGS, BAGGING, ETC.

Katzenstein & Keene, Inc., City of St. Joseph, Naples, 124 bls. rags.
Certainteed Products Corp., City of St. Joseph, Marseilles, 105 bls. rags.
A. Brown & Sons, Chickasaw, London, 154 bls. rags.
A. Brown & Sons, Chickasaw, Hull, 124 bls. paper stock.
A. Brown & Sons, Sagoporack, London, 113 bls. rags.
A. Brown & Sons, Sonora, Havre, 732 bls. rags.

WOOD PULP

Pagel, Horton & Co., Inc., Westport, Gefle, 4,165 bls., 846 tons dry sulphate.
Johanesson, Wales & Sparre, Inc., Westport, Gothenburg, 895 bls., 180 tons dry sulphite.
Johanesson, Wales & Sparre, Inc., by same, 240 bls., 50 tons bleached sulphite.
Johanesson, Wales & Sparre, Inc., by same, 1,666 bls., 333 tons Kraft sulphate.
Scandinavian American Trading Co., by same, 1,651 bls., 329 tons, Kraft sulphate.
Nilsen, Lyon & Co., by same, 295 bls., 59 tons unbleached soda pulp.
R. F. Hammond, Inc., by same, 2,000 bls., 400 tons dry chemical pulp.
The Booregaard Co., by same, 1,500 bls., 304 tons dry chemical pulp.

CHARLESTON IMPORTS

WEEK ENDING JULY 7, 1923

E. J. Keller Co., Inc., Shickshinny, Rotterdam, 333 bls. bagging.
E. J. Keller Co., Inc., Magmeric, Bremen, 313 bls. bagging.

NEW ORLEANS IMPORTS

WEEK ENDING JULY 7, 1923

Castle & Overton, Spaarnda, Rotterdam, 92 bls. rags.

The Home of Quality

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132ND TO 133RD ST. & BROOK AVE

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Sacks and Specialties

This Registered Trade Mark Octagon

on a Paper Bag Vouches for Its Good Quality

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Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,
WEDNESDAY, July 11, 1923.

While the market for chemicals and other paper makers' supplies is still slow dealers are looking for a change within a few weeks now. Not the least of the elements that will contribute to the betterment of the domestic market is the strike in the Norwegian pulp mills.

BLEACHING POWDER.—Prices on bleach have been unsteady, not because of a lessening demand, but because nature has perversely decreed extremely hot weather. To dealers in bleach high temperatures spell deterioration and loss of money so there has been quite a scamper to get rid of lots of bleach and keep them from remaining too long in storage. The price is still from 1.60 to 1.65 cents a pound.

BLANC FIXE.—There were no changes in the price of blanc fixe during the week. Some dealers thought that the demand had picked up a trifle and the firmness of the price would seem to indicate this. The pulp grade is still at $50 to $55 a ton and the dry from $80 to $85.

CHINA CLAY.—Although there is not much demand for china clay it is such a closely held commodity that the prices on it are remaining the same in spite of adverse market conditions. Importers say that they expect an increase in demand soon and that they would gain no business by a revision of prices at this time. Domestic remains at $14 to $17 a ton and imported from $15 to $23 depending upon the grade required.

CAUSTIC SODA.—Paper mills were not interested in caustic soda during the past week except for immediate use. They showed no inclination to take on large stocks for future use and trading in the open market was extremely dull. The price remained at the same level with a few sales made slightly below on distressed lots. It is quoted at 3.17 cents a pound on the new 76 per cent or flat basis.

CASEIN.—Casein seemed to be in just about the same poor demand this week as it was the week before. There are indications, however, that the first of next month will see a generally freshening in this and other commodities listed here. The price remains at 16 to 17 cents a pound.

CHLORINE.—Liquid chlorine has not as yet showed any tendency to move more rapidly and the mills are not evincing much interest in it. Dealers are not showing any inclination to put the price down since they do not believe that the present situation is so much a question of price as seasonal dullness. It is still quoted at 4.40 to 4.20 cents a pound in tanks.

ROSIN.—Naval stores are not much in demand so far as the paper industry is concerned and dealers look for no change much before the opening of fall buying. The price on papermaking rosin remained at 6.10 to 6.15 cents a pound.

SALTCAKE.—In spite of the fact that saltcake is not in particularly good demand the price remains firm and dealers report that they are doing enough business to keep them going. They expect a considerably larger demand by the middle of next month if not sooner. The price is now at about $25 to $26 a ton.

SATIN WHITE.—Satin white has shown no change during the past month or six weeks. The demand is perhaps a little better than in some of the other materials listed in this market, but at the same time it is not large enough to change the price perceptibly. It is still quoted at 1.50 to 2.00 cents a pound.

SODA ASH.—There has been little or no trading in the open market for soda ash during the past week. Contracts were slow in coming in and prices remained the same, 1.50 to 2.00 cents a pound.

SULPHATE OF ALUMINA.—Little demand in the open market and a hand-to-mouth buying policy on the part of the mills marked the alumina sulphate market during the week. The iron free grade is quoted at 2.15 to 2.40 cents a pound and the commercial from 1.25 to 1.40 cents.

Market Quotations

(*Continued from page 69*)

No. 1 Mixed	1.60	@	1.75
No. 2 Mixed	1.25	@	1.50
Solid Ledger Stock	2.50	@	2.75
Writing Paper	2.25	@	2.50
No. 1 Books, heavy	2.00	@	2.25
No. 2 Books, light	1.40	@	1.50
No. 1 New Manila	2.75	@	3.00
No. 1 Old Manila	1.50	@	1.75
Container Manila	1.35	@	1.50
Old Kraft	2.25	@	2.50
Overissue News	1.50	@	1.60
Old Newspaper	1.00	@	1.50
No. 1 Mixer Paper	1.00	@	1.10
Common Paper	.80	@	.90
Straw Board, Chip	1.00	@	1.10
Binders Bd., Chip	1.00	@	1.10

Domestic Rags—New.
Price to Mill, f. o. b. Phila.

Shirt Cuttings—			
New White, No. 1	.12	@	.12¼
New White, No. 2	.07	@	
Silicias, No. 1	.07¼	@	.07½
New unbleached	.10	@	.11
Washables	.04½	@	
Fancy	.05¼	@	.05½
Cottons—according to grades—			
Blue Overall	.05½	@	.05¾
New Blue	.02¾	@	.02¾
New Black Soft	.06¾	@	.06½
New Light Seconds	.02¾	@	.02¾
Khaki Cuttings	.11	@	.04½
Corduroy	.03½	@	.04
New Canvass	.08¾	@	.08¾
New Black Mixed	.04	@	
Old White, No. 1—			
Repacked	.06	@	.06½
Miscellaneous	.04½	@	.04¾
White, No. 2—			
Repacked	.03½	@	.04
Miscellaneous	.03	@	.03¼
Thirds and Blues—			
Repacked	2.00	@	2.25
Miscellaneous	1.85	@	1.90
Black Stockings	2.75	@	3.00
Roofing Stock—			
No. 1	1.35	@	1.40
No. 2	1.25	@	1.30
No. 3	1.15	@	1.20
No. 4	1.15	@	1.20
No. 5A	1.10	@	
B			nominal
C			nominal

BOSTON

[FROM OUR REGULAR CORRESPONDENT.]

Paper

Bonds	.09½	@	.63
Ledgers	.09½	@	.55
Writings	.08½	@	.42
Superfine	.16	@	.26
Fine	.15	@	.18
Books, S. & S. C.	.07¼	@	.12
Books, M. F.	.06¾	@	.09½
Books, coated	.09	@	.15
Label	.09	@	.13
News, sheets	4.75	@	6.00
News, rolls	4.50	@	5.75
Manilas—			
No. 1 Manila	$6.00	@	7.00
No. 1 Fiber	.06½	@	.07
No. 1 Jute	9.00	@	10.50
Kraft Wrapping	.07	@	
Common Bogus	3.50	@	3.85

Boards

(Per Ton Destination)

Chip	$62.50	@	65.00
News, Vat Lined	65.00	@	70.00
Wood, Vat Lined	72.50	@	75.00
Filled News Board	65.00	@	
Solid News Board	75.00	@	80.00
S. Manila Chip	75.00	@	80.00
Pat. Coated	90.00	@	105.00

Old Papers

Shavings—			
No. 1 Hard White	4.15	@	4.25
No. 1 Soft White	3.35	@	3.50
No. 1 Mixed	.90	@	1.00
Ledgers & Writing	2.00	@	2.25
Solid Books	1.75	@	1.90
Blanks	1.25	@	1.50
No. 2 Light Books	1.50	@	
Folded News, overissues	1.00	@	
Gunny Pagging	1.15	@	1.25
Manila Rope	6.25	@	6.50
Common Paper	1.00	@	
Common Mixed	.70	@	.75
Old News	.80	@	.90
Old Kraft	1.90	@	2.10
No. 1 Scrap Burlap	.90	@	1.00
No. 2 Roofing Bagging	.60	@	.70
Mixed Strings, 1 cent per lb.			

TORONTO

[FROM OUR REGULAR CORRESPONDENT.]

Paper

(Mill Prices to Jobbers f. o. b. Mill)

Bond—			
Sulphite	.11	@	.12½
Light tinted	.12	@	.13½
Dark Tinted	.13½	@	.15
Ledgers (sulphite)	—	@	.13
Writing	.09½	@	.12
News, f. o. b. Mills—			
Rolls (carloads)	3.75	@	—
Sheets (carloads)	—	@	4.50
Sheets (2 tons or over)	—	@	4.75
Book—			
No. 1 M. F. (carloads)	9.00	@	—
No. 2 M. F. (carloads)	8.00	@	—
No. 3 M. F. (carloads)	7.50	@	—
No. 1 S. C. (carloads)	9.50	@	—
No. 2 S. C. (carloads)	8.50	@	—
No. 1 Coated and litho.	14.00	@	—
No. 2 Coated and litho	13.00	@	—
No. 3 Coated and litho.	12.25	@	—
Coated and litho., colored	14.25	@	—
Wrapping—			
Grey	5.00	@	—
White Wrap	5.75	@	—
"B" Manila	6.00	@	—
No. 1 Manila	7.25	@	—
Fiber	7.25	@	—
Kraft, M. F.	8.00	@	—
M. G.	8.15	@	—

Pulp

(F. o. b. Mill)

Ground wood	$36.00	@	38.00
Sulphite easy bleaching	60.00	@	65.00
Sulphite news grade	50.00	@	55.00
Sulphite, bleached	90.00	@	92.50
Sulphate	70.00	@	72.50

Old Waste Papers

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	3.65	@	—
Soft White Book shavings	3.30	@	—
White Blk. News	1.90	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.30	@	—
Light and Crumpled Book Stock	1.15	@	—
Ledgers and Writings	1.85	@	—
Solid Ledgers	2.00	@	—
Manilas—			
New Manila Cut	2.00	@	—
Printed Manilas	1.55	@	—
Kraft	2.25	@	—
News and Scrap—			
Strictly Overissue	1.00	@	—
Folded News	1.00	@	—
No. 1 Mixed Papers	.85	@	—
Domestic Rags—			
Price to mills, f. o. b. Toronto			Per lb.
No. 1 White shirt cuttings	12	@	
No. 2 White shirt cuttings	.06	@	—
Fancy shirt cuttings	.05½	@	.06
No. 1 Old Whites	.04½	@	—
Third and blues	.02¾	@	.02½
			Per cwt
Black stockings	.03	@	—
Roofing stock:			
No. 1	—	@	—
No. 2	—	@	—
Roofing stock:			
Manila rope	.05½	@	.06
No. 2	1.35	@	—
Gunny bagging	.01½	@	—